

749

AGTCCGGGGG	ACCTTTTTAG	TCGGTAGATT	GAGATTGCAA	ACAAATCTGC	ATCTACATTG	4860
AAAGCTTAAT	TTCTAATAAT	TGAAAAAATC	GAATGAAAAA	TTTCTTACCT	TCATTACACAG	4920
AGCTCGATTT	CAGAGCTCTT	TTTGCTAGCT	TATTCATACT	TTTCTGAATT	TCGAAAAAGA	4980
AATGTAAGCG	TTTGATAGAT	TTACAAAAAG	ATTGTATAAT	AGGGATAAGA	ATAGAAAAGG	5040
AGAAGTCTCA	TGGCAGTTAA	AGATTTTATG	ACCCGCAAGG	TAGTTTATAT	TAGTCCAGAT	5100
ATAACAGTAT	CTCATGCAGC	AGATTTGATG	AGAGAGCAAG	GTTTGCACCG	TCTGCCTGTT	5160
ATCGAAAATG	ATCAATTAGT	TGGTTTGGTG	ACTGAGGGAA	CCATTGCACA	AGCAAGTCCA	5220
TCTAAAGCAA	CAAGTCTTTC	TATCTATGAG	ATGAATTATC	TTCTGAATAA	GACAAAAGTA	5280
AAAGATGTCA	TGATTCGCGA	TGTTGTCACT	GTCTCAGGCT	ATGCTAGTCT	AGAAGATGCA	5340
ACTTATCTGA	TGTTGAAAAA	TAAGATTAGT	ATTCTCCCTG	TCGTAGATAA	CCATCAAGTA	5400
TACGGAGTTA	TTACTGACCG	TGACGTTTTT	CAAGCCTTTC	TTGAAATTGC	AGGTTATGGC	5460
GAAGAAGGGA	TTCGTGTACG	CTTTGTTACA	GAAGATGAAG	TTGGTGTTCCT	TGGAAAAATT	5520
GTTTCTTTGA	TTGTAGAAGA	AAATTTGAAT	ATCTCCCAT	CAGTCAATAT	TCCGCGTAAG	5580
GATGGTAAGG	TGATTATCGA	AGTGCAAATC	GATGGATCAA	TTGATTTACC	AGCCTTGAAA	5640
GAAAAATTTG	AAGCAAATGG	TATTCAAGTG	GAAGAAATCG	CTCGCACTTC	AGCAAAAAGTC	5700
TTGTAAGAAG	GGAAGCCCAA	AGGCTTCTTT	TTTCATGAAA	AGGGGATTAG	AGCAAAAAGAT	5760
GGAAAGAAAT	GATAAAATAT	GCTATAATGA	AATAATGTAA	AAAAGGAGTA	TTTATGGACA	5820
TTTCAGTAAT	TCGTCAGAAA	ATTGACGCAA	ATCGTGAAAA	ATTAGCTTCT	TTCAGGGGGT	5880
CTCTTTGACC	TCGAAGGGCT	AGAGGAAGAG	ATTGCCATCT	TGGAAAACAA	GATGACAGAA	5940
CCTGATTTTT	GGAACGATAA	TATTGCGGCC	CAAAAAACGT	CGCAAGAATT	AAATGAATTA	6000
AAAAACACTT	ACAATACCTT	CCATAAGATG	GAAGAGTTGC	AGGATGAAGT	CGAAATTTTA	6060
TTGGATTTTT	TGGCTGAAGA	CGAGTCAGTG	CATGATGAAC	TGGTAGCGCA	GTTAGCCGAA	6120
CTTGATAAGA	TAATGACCAG	CTACGAGATG	ACTCTACTCT	TGTCAGAACC	TTATGACCAC	6180
AACAATGCCA	TCTTGGAAT	CCATCCAGGT	TCTGGTGGTA	CTGAGGCGCA	GGAAGGGGT	6240
GATATGTTGC	TTCGTATGTA	TACTCGTTAT	GGTAATGCTA	AAGGCTTTAA	AGTGGAAGTG	6300
TTGGATTACC	AAGCAGGTGA	TGAGGCTGGT	ATTAAGTCGG	TAACTTTATC	ATTTGAAGGG	6360
CCTAATGCCT	ATGGTCTCCT	CAAGTCAGAA	ATGGGTGTTC	ACCGCTTAGT	GCGAATCTCA	6420
CCATTTGACT	CTGCCAAACG	TCGCCATACC	TCTTTCACAT	CTGTAGAAGT	GATGCCAGAA	6480
TTGGATGATA	CTATTGAAGT	GGAAATCCGT	GAAGATGATA	TCAAGATGGA	TACCTTCCGT	6540

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TCAGGTGGTG	CCGGTGGACA	AAACGTCAAT	AAGGTTTCAA	CAGGTGTACG	TTTAACCCAC	6600
ATTCCAAC TG	GAATTGTTGT	CCAATCAACA	G TAGATCGTA	CCCAGTATGG	AAATAGAGAT	6660
CGTGCCATGA	AGATGTTGCA	GGCTAAGCTC	TATCAAATGG	AGCAAGATAA	GAAGGCTGCG	6720
GAGGTAGATT	CTCTCAAAGG	TGAGAAAAAG	GAGATCACTT	GGGGAAGCCA	AATCCGTTCT	6780
TATGTCTTCA	CGCCTTATAC	TATGGTAAAA	GATCACCGAA	CTAGCTTTGA	GGTTGCTCAG	6840
G TAGATAAGG	TTATGGATGG	GGACCTAGAT	GGTTTTATCG	ATGCTTATCT	CAAGTGGCGA	6900
ATTAGCTAAG	ATAGAAAGGA	ACTCACATGT	CAATTATTGA	AATGAGAGAT	GTCGTTAAAA	6960
AATACGACAA	CGGAACAAC T	GCTCTACGCG	GTGTTTCGGT	TAGCGTTCAA	CCGGGGGAAT	7020
TTGCTTACAT	CGTAGGACCT	TCAGGAGCAG	GGAAGTCAAC	TTTTATTTCG	TCTCTGTATC	7080
GTGAAGTAAA	AATCGATAAA	GGAAGCCTAT	CAGTTGCTGG	TTTTAATCTG	GTTAAGATCA	7140
AAAAGAAAGA	TGTCCCGCTT	CTACGTCGTA	GTGTTGGGGT	TGTCTTCCAG	GATTATAAAT	7200
TGTTACCAAA	GAAAAC TGTC	TATGAAAATA	TTGCTTACGC	TATGGAAGTA	ATCGGGGAAA	7260
ATCGCCGTAA	TATCAAAAGA	CGAGTGATGG	AAGTTTTTGA	CTTGGTTGGA	TTGAAGCATA	7320
AGGTTCGTTC	TTTCCCAAAT	GAAC TCTCAG	GTGGGGAGCA	ACAGCGGATT	GCGATTGCGC	7380
GTGCAATTGT	AAATAATCCC	AAAGTATTGA	TAGCTGATGA	GCCAACAGGA	AATCTGGATC	7440
CGGATAATTC	ATGGGAAATT	ATGAATCTCT	TGGAACGGAT	TAACyTACAA	GGAACA ACTA	7500
TTTTGATGGC	GACTCATAAT	AGCCAGATTG	TAAATACCTT	GCGCCACCGT	GTCATTGCCA	7560
TTGAAAATGG	CCGTGTCGTT	CGTGACGAAT	CAAAAGGAGA	GTATGGATAC	GATGATTAGT	7620
AGATTTTTTC	GCCATTTATT	TGAAGCCTTA	AAAAGTTTGA	AACGAAATGG	TTGGATGACA	7680
G TAGCTGCTG	TCAGTTCAGT	CATGATTACT	TTGACCTTGG	TGGCAATATT	TGCATCTGTT	7740
ATTTTCAATA	CAGCGAAACT	AGCTACAGAT	ATTGAAAATA	ATGTCCGTGT	AGTAGTTTAT	7800
ATCCGAAAGG	ATGTGGAAGA	TAATAGTCAG	ACAATTGAAA	AAGAAGGTCA	AACTGTTACA	7860
AATAATGACT	ACCACAAGGT	ATATGATTCT	TTGAAGAACA	TGTCTACGGT	TAAAAGTGTT	7920
ACCTTTTCAA	GTAAAGAAGA	ACAATATGAA	AAATTAACCG	AGATAATGGG	AGATAACTGG	7980
AAAATCTTTG	AAGGAGATGC	CAATCCTCTC	TATGATGCCT	ATATTGTAGA	GGCAAACACT	8040
CCAAATGATG	TAAAAACTAT	AGCCGAAGAT	GCTAAAAAAA	TTGAAGGTGT	CTCTGAGGTT	8100
CAAGATGGCG	GTGCCAATAC	AGAAAGACTC	TTCAAGTTAG	CTTCATTTAT	CCGTGTTTGG	8160
GGACTAGGGA	TTGCTGCTTT	GTTAATTTTT	ATCGCAGTTT	TCTTGATTTT	AAATACCATT	8220
CGTATTACCA	TTATTTCCCG	CAGTCGCGAA	ATTCAAATCA	TGCGCTTGGT	CGGAGCTAAA	8280
AACAGTTATA	TCCGTGGACC	GTTCTTGTTA	GAAGGAGCCT	TTATCGGTTT	ATTGGGAGCT	8340

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ATCGCACCAT CTGTTTTGGT CTTTATTGTT TATCAAATTG TTTACCAATC TGTCACAAAA	8400
TCGTTGGTAG GGCAAAATCT ATCCATGATT AGTCCAGATT TATTTAGTCC GTTGATGATT	8460
GCCCTACTAT TTGTGATTGG GGTTCATT GGTTCATTGG GATCAGGAAT ATCCATGCGC	8520
CGATTCTTGA AGATTTAGGT AAAATAGCTG CTTTTATGAG GAGATTGTAA AATCTCCTTT	8580
TTTGCTACAA GAGTTTTTGA AAAGAGATGC GCAGAAGAAA AGAGCTTCCA AAGAAGTCCC	8640
CCAGAGAAGA CTTC	8654

## (2) INFORMATION FOR SEQ ID NO: 99:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 19718 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 99:

TGTCGCGTCA AAATCATTAC TATGGCTATG TATAGCCCTT ACTATGACTT GGCTAAACAC	60
GTTTCGCTTTC AAATTTCTAG GCTCAGGCTG AAACAGTCTC CCAGGCTGTT CACTCCCGAA	120
TGCTAAAATC GTTCTTGATC GCTTTCACAT TGTACAACAT CTTAGCCGTG CTATGAGTCG	180
TGTGCATGTC CAAATCATGA ATCAGTTTCA TCGAAAATCC CATGAATACA AGGCTATCAA	240
GCGCTACTGG AAATCATTTC AACAGGATAG CCGTAAACTG AGTGATAAGC GATTTTATCG	300
CCCTACTTTT CGCATGCACT TAACAAATAA AGAAATTCTT GACAAGATTT TAAGCTATTC	360
AGAAGACTTG AAACACCACT ATCAGATCTA TCAACTCTTA CTTTTTCACT TTCAGAACAA	420
AGACCCTGAG AAATTTTTTCG GACTCATTGA GGACAATCTG AAGCAGGTTC ATCCTCTTTT	480
TCAGACTGTC TTTAAAACCT TTCTCAAAGA TAAAGAAAAG ATTATCAACG CCCTTCAACT	540
ACACTATTCT AATGCCAAAC TGGAAGCGAC CAATAATCTC ATCAAACCTA TCAAGCGCAA	600
TGCCTTTGGT TTTCGAAACT TTGAAAACCT CAAAAACGG ATTTTATCG CTTTGAACAT	660
CAAAAAAGAA AGGACGAAAT TTGTCCTTTC TCGAGCTTAG CTGACTTCAA CCCACTACAG	720
TTGACAAAGA GCCTAATTTT CATAAAAATT GACATGGAAA TTATAAAACC ATTACTAGTT	780
TAGTCCTTTT TGATAACGTG CCAATTCGGC TTGGTTCGCC CAAACATAGT GACCTGGACG	840
GATTTCTACC ATAGATGGCT TATCAGTCTC ATAGTCGTGT TGACTTGGAT CGTAAACCTT	900
CAAGACCTTC TTACGTTCCA AGATTGGATC TGGGATTGGT ACCGCTGAAA GCAAGGCTTG	960
AGTATATGGG TGAATTGGAT TGTAAACAA TTCTTCTGTT TCTGCAACCT CTACAATAAC	1020



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ACCCTTGTA	ATAACTGCGA	TACGATCTGA	AATAAAGCGA	ACAACCGACA	AGTCATGGGC	1080
GATGAAGAGA	TAGGTCAGGC	CGAGCTCTTT	TTGGAATTTT	TTGAGCAAGT	TCAAGACTTG	1140
GGCACGTACA	GAAACGTCCA	AGGCTGAAAT	TGGCTCATCT	GCAATAACAA	AGTCTGGTTG	1200
CATGACCAAG	GCACGGGCAA	TACCGATACG	TTGACGTTGA	CCGCCTGAGA	ATTCATGAGG	1260
GTAACGAGTC	AAGTGCTCAG	CAAGAAGACC	TACTTCACGG	ATAATATTTT	GAACCTTCTC	1320
TTTACGTTCT	TCTTCATCCT	TAAATAAACG	GTGATTGTAA	AGACCTTCAG	AAATAATATA	1380
ATCAACAGTC	GCACGTTTAT	TCAAACCTGC	GGCAGGGTCT	TGGAAAATCA	TCTGGATTCTG	1440
ACGAATCAAT	TCCGCAGCTT	GTTACACGCGA	TTTCTTACCA	TTAATCTTTT	GACCATCAAA	1500
AATGATATCT	CCATTACTTG	TATCATTTAG	ACCGATGATA	GCACGACCAA	TAGTTGTTTT	1560
CCCCTACCG	GACTCACCTA	CAAGCGAGAA	AGTTTCTCCC	TTGTTGATAA	AGAAGTTAGC	1620
ATTTTAAACC	GCGACAAACT	TCTTACTTCC	TTCACCGAAG	GAAATTTCTA	AATCTTTGAT	1680
TTCTACTAAT	TTTTCAGACA	TTTCTTCTCT	CCTAGTCAGC	CAGATGGGCA	AATCCCATTT	1740
TTTACCGGAT	CTTATCATGG	AGATTTGCAA	TCACAGCTGG	TTTTTCTACT	TTCGGAGCAT	1800
CCTCATGAAG	AAGCCAAGTT	TTAGCCCAAT	GTGTCTCTGA	TACTGAGAAT	TGAGGAGCTT	1860
TTTGTTTCGAA	GTCAATCTGC	ATTGCGTAGT	CAGAACGCAA	GGCAAAGCA	TCCCCTTTCA	1920
GGTCAGTATA	AAGTGACGGA	GGTGTTCCTG	GGATTGAGTA	AAGATCCCCCT	TTATCATCAG	1980
CAAGCTGAGG	CAAGCTAGAC	AAGAGACTCC	ATGTATATGG	ATGGCGAGGG	TCATAGAAGA	2040
CTTCTCAAC	CGTTCCATAC	TCAACGATTT	CTCCTGCATA	CATAACCGCT	ACCTTATCCG	2100
CAATACTTGC	CACCACACCA	AGGTCGTGGG	TAATAAAGAT	TGTTGTGAAA	TGATACTCGT	2160
TTTGTAAGA	TTTTAGCAAA	TCAATAATCT	GAGCTTGAAT	AGTTACATCC	AAGGCAGTTG	2220
TTGGCTCATC	ACAGATCAAG	ACATCAGGTC	GGCAGGCAAG	GGCAATAGCA	ATAACGATAC	2280
GTTGACGCAT	TCCTCCAGAA	TATTGGAATG	GGTATTCATT	AAAACGTCTA	TCTGCGTCTG	2340
GAATGCCAAC	CTTATTCATG	TAGTCAATGG	CCAATTCTTT	CGCTTCTTTA	GCTGTTTTTC	2400
CTTGGTGTTC	TACAATAACT	TCTGTAATCT	GACTACCAAT	TGTTTTAATG	GGGTCCAAAC	2460
TAGTCATTGG	GTCTGGAAG	ATAGTCGCAA	TCTTAGCACC	ACGAATTTGT	TCCCAATCCT	2520
TGTGAGAAGA	TAAAGCTGTC	AAGTCCTGAC	CACGGTAGTC	AATACTACCT	TGGGCAATAC	2580
GACCATTTTC	TTGAGCATA	CCTGTGAAGG	TCTTTGTCAA	AACAGATTTA	CCTGATCCTG	2640
ACTCACCTAC	CAAGGCTAAT	ACTTCTCCTT	CGACTAGTTC	AAGGGAAACG	CCGCGAATGG	2700
CTGTCAATAC	TTTGTCACGA	ACGTCAAATT	CCACGACAAT	ATCGCGAGCA	GTCAAAATTA	2760
CATTTTTTTC	TTTTGTCATT	TCTACTCCTA	TCTATGTGTA	CGTGGATCAC	TAGCATCCGC	2820



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TAAGTTTTGA	CCAACCTACGA	AAAGGGACAA	GGATACCAAG	ACAAGGGTTG	TCAATGGAAT	2880
CCAGAACAAG	TAAGCATTTGG	TTGTTACGTT	TTGTGAATAA	TCCGAAATCA	AACGACCCAA	2940
ACTTGGCACT	GTAATCGGTA	ATCCAAGACC	GAAGAAAGAC	AAGAAGGCTT	CGTATGAGAT	3000
AAAGCTTGGA	AGCATTTGAG	TCATGGTTGT	CACAATAACA	GATACCAATT	GAGGCATGAT	3060
ATTTTTGGCA	ACAATCTTCA	AGGTTGGTGT	TCCCAAAGTA	CGTGACGCCA	AGTTGTATTC	3120
CAAGTCACGA	TAGCGCAAGA	TTTGCACACG	GATCATGAAG	GCAATACCAA	TCCATGTTGT	3180
TACGCTCATG	GCAAAAATCA	GATTCCAGAA	TCCAGCTCCG	ATTGAGTAAG	TCAAGACAAT	3240
AACAATCAAA	AGAGGTGGGA	TGTTTGAGAT	GACGTTGTAA	ACTTCCATCA	TGACACGGTC	3300
AACTGATTTT	GAAATACCCC	AAATACCACC	GACAAAAACA	CCGATAACCA	AGTTAATCAC	3360
TGTCGCAATC	ACAGAAATGA	GGATGGAGTT	ACGAGCTCCG	AACCAGACAC	CGTCAAAGAG	3420
CGATTTACCG	TTACTGTCAG	TACCGAACCA	ATGCTCCGCA	TTTGGCTTGA	TATAACGAAC	3480
ACTAAAGTCG	TTTACCTTGC	TGACATCATT	GAAATCAAAC	TTAGAAAACA	TTGGGTAGAT	3540
GAAACTTATC	AAAATGATGG	CTACCAAGAT	TCCCAACATG	ACTACAGTTG	ATTTTTTCTT	3600
CATAAATTGT	TTAAACACTG	ATTTCCAGTA	AGAATATGCT	GGCGCATCAA	TAGTTTCAGA	3660
GGCAAAATCG	TCACGTTTTA	CAAACCTGAA	TTTTTCTTTA	TCGATTGTAG	ACATTATTTG	3720
CCTCCTTTCT	CAGTCAATTT	AATACGTGGG	TCAATAATAG	TCATCCAAAT	ATCTCCCAA	3780
AGACGTGAGA	AGATAGAAAT	ACATGTAAAG	ATGAAGACAA	GACCAACGAC	CATAGAGTTA	3840
TTAGATGCTT	TTACAGAGTC	AATCAACATT	TTACCCATAC	CTGGGAAGGC	GAAGACTGTT	3900
TCAGTAAGGG	TTGCACCACC	GATAACCCCA	ATAATGGCAG	CAGGAATTCC	TGAAACCAGC	3960
GGAACCATGG	CATTTTTTAA	GATGTGTTTG	TTTGAAATTT	CTTTTTCAGA	CAAACCTTTT	4020
GCACGAGCGA	AACGAACAAA	GTCTTGAGAT	TGCAAGTCAA	TCATGTAACG	ACGAATCCAA	4080
ATGGCTGTAC	CAGGAGCACC	CAACAAACCA	AGGATGACTG	CTGGTAAAAC	GTAAGAACGC	4140
CAATCTCCAG	CTCCCAAGAT	AGGGAATGAA	TCTGGAAGGG	CAATAGATGA	TCCAATCAAT	4200
CGAACGATGT	AAACCAAGGC	AATCGTTGGA	AGAGCAAGCA	AGAAGGTCAA	AGCCCCCTGT	4260
GAGAGGCTAT	CAATCCAAGT	GTTCTTGAAA	CGAGCCATGG	CTGAACCAAG	TGGCACGGCA	4320
AGAGCATAGG	CAAGAACCAA	ACCAATCAAA	CCAGTAATAG	CAGAGCTGAC	AATCATAGAT	4380
GGATATTGGT	AATTACTTTC	AGTCGCTGTA	TAAGGATCAT	CTTTCCCAT	GCTAGCTACT	4440
TCACGAGAGT	CAGCCTGACT	AGGTGACTTG	TAGGTTCTTG	AGTAAATATT	TACAGAAGAC	4500
GTTTTCTTAC	CTGTTGGGAA	CTGAACTTGG	GCAGTTTTGG	TTTGTCTTGG	ACCTTGAGTA	4560

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ATAACCTGAA	GAAGTGGTGT	ATTAGCATAG	GTTGGGTAAG	AGTCACCTAA	ATTCAAGTTC	4620
ACAAAGTTTT	GATGAACAAA	TGGGAACTGA	CTGTTAAAGT	ACAAGAGATA	TTTATGTTTA	4680
GTTCTGAAAC	CGACCAATGA	CCATCCGATA	GCTGGATCAT	TTTCAAAACG	AAGGTAGCGT	4740
TTCAAGTCTG	GATTTTCAGG	GTCTTGGATT	TTATTTGTAT	GGTCAATGTC	AATCAAGTTA	4800
GCATAGAAGT	GAAAAACACG	TTCAAAAATT	GGAATTTTAC	GAGTAGCATA	GAATTGACCA	4860
CTTTCAGTAA	ATTCTCCCAA	AGTCCAACCA	TGACCTAATT	GATTGATGTA	CTTTTCATAA	4920
ATAGCTTTAT	TGGTCGCATT	TGCTTCTACT	GTTACAGAAG	AATCCATGCT	ACTTGCCTTT	4980
TCTTGCAACT	CTTTAGTATC	GTAATACTCA	ATGTAGCCCA	TACGCTCAAA	CACAGTATTT	5040
TCATAGTTAT	CACGTTTATC	AGCCGTTGTC	GCAATTTTAT	TATAGTTAGG	ATCCTGCTTG	5100
AAAATCAATT	TTCGAGGAAC	CAAGGTATAG	ATAATCGTGT	AGGTCAAAGT	CGTTACTAAG	5160
AAAATCGAAA	CCAATGACCG	CAAAACACGC	ATAAAAAATAT	ATTTTTTTCAT	ATTATTTTCCT	5220
TTAAAAATCC	CAAAGAACC	TTCTCCTCAT	GGAGAGAAAG	TTCTATTAGA	AATTATTTAC	5280
TTACATGAC	TTGCCAATTC	TTTTTGAGCT	TTCTCATTTG	ATTCAGCTTT	TTCTTTCAAC	5340
CATTTTTTAC	GAGCTTTTTT	ATACTCTTCC	TTAGTCACCA	CTTTATCTTG	TGATTTCAAA	5400
TATTTGAAGT	AAACATCTGA	CCCCTTAGAG	CCTGTTTGCG	CAGAAGCTCC	AGTAAATGGA	5460
ACAATTCGTG	AAAGCACTGG	TGCTGCACCA	GAAGAAGCCA	TAGCAGGAAT	AAAGAGTGAA	5520
CTATCTGTCA	ACCATGCTTG	AGCCGCTGCA	TATTTTTTCAT	AACGGACATT	CAAGTCGCTT	5580
GTCTCTCTGG	CAGCTTCATC	AACTAATTTA	TCGTATTCTT	TCAAACCAAC	TTGAACTACT	5640
GAAGGGCTAT	TTGGATTATC	AAATCCTAAA	TATGTTTTTTG	TAGTTTCACT	GCTAGTTGTT	5700
TTTAAATAT	CCAGGTAAGT	AGATGGGTCT	TGATAGTCTG	GCCCCCATGA	AACTCCTCCT	5760
GATACATCCC	AATCCTCAGA	TGAAGCATTG	GCAGCATAGT	AAGTAATATT	AAGGAATTCA	5820
TCACTTGTC	TTTGTTGAAT	ATCAACAACG	ACATTTTCAA	CACCAAGAAC	TGTTTCTACA	5880
GATTGTTTAA	AGGACTGAAT	ACGAGATATG	TAGTTTTTTTG	ATGCTTGGTC	TACTGGAACG	5940
TCCAGATGAA	TAGGAAACTG	AACGCCGTCT	GCTTCTAAAG	CTTTCTTAGC	TTTCGCAAAC	6000
TCTGCCTTGG	CCTTGTCAGC	ATTGAATAAA	CCATCCTGCC	CATCAGCTAA	ATTCACACCT	6060
TTCCACTCAT	CACCATAAGC	AGGAAGTTGA	GCAGCGACTA	AATCACCAAA	GGTCTTCTCA	6120
CCAGCTGAAA	CAAAGTCTGG	TTTTACAAAT	AAATTACGAA	CTGCTAAAGC	TGCTCCATCT	6180
TTACCATTGA	TTTGAGCTGA	GTAAGCTGAG	CGATCAAGAG	CAAAATTCAA	GGCTTGACGG	6240
AAATCTTTGT	TAAGCAATGC	CTTCTTAGTA	GCTACTTTCT	CTGAATCTGT	AGTTTTAGAA	6300
GTATAGTTGT	AACTTTGGCG	ATCAATATTC	ACACCCAGAC	CAGCAATCCC	AGAGCCTGAT	6360

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TGTGTGTAAT	AGATATTGTC	CTTGTATTCT	TCTGCAACCT	TAGAATAGTT	GGAGCTGGTA	6420
GGGTAAAGAC	GGGCATAACT	ATAAGCTCCA	CTAGTGAAGT	TACGCTCTAG	CGACTCCTGA	6480
TCTGATCCAT	CATAGTAAGC	TAGATTGATA	GTATCTAGGT	GGACATTTTC	TTTATCCCAA	6540
TATTGCTCAT	TTTTTACAAA	CTCTACAGAA	GATTTTGCAG	TCAACCCTTT	CAACAAGAAT	6600
GGACCATTAT	AAAGCAAGGA	TGTCGGATCT	GTTGGTTTAG	CAAAATCGCT	TCCTTTTGAT	6660
GTTTCGAATT	CTTCATTCAG	AGGCCAGAAA	ATAGAATAGG	TCAACTTAGA	GTTCCAGAAC	6720
GGTTCAGGCT	GGTTCAAAGT	GTATTGTAAC	GTATAATCAT	CAACCGCCTT	GACACCAACT	6780
GTTGAAAAAT	CTGTTGAAGT	TCCTGATAGA	TAATCTGCCA	AGCCTTTAAC	CGAATTTTCA	6840
GCTAAATACA	TAGCTTCTGA	TTTTTTATCT	GCTGCGTGTT	TTAAACCGTT	CACGAAATCT	6900
TTAGCCGTCA	CCTCTGCATA	TTCTTCTCCA	TCAGAGGTAA	ACCATTTAAC	CCCTTTACGA	6960
ATCTTATAAG	TGTAGGTCAA	ACCATCCTTA	GAGACTTCCC	AATCCTCTGC	AACTGCAGGA	7020
GCAAGATTAC	CGTAATTATC	GTTAGTGAAT	AAACCATCAA	TCCCATTTGA	AGTCACTACT	7080
GTTGTACTAT	TTTTACTTGA	AATCAGGTAG	TCCAAGGTTT	CTGGGTCTGC	TGTATAAACA	7140
TAGCCATAAG	CTTTAGGGGC	TGATGAATCA	GATGATTTTG	AAGAACTGCA	TGCTGCAAGT	7200
ACACCTGCTG	CTAATAAAAC	AAGACCTGCT	GTAGCAAATA	CACGATTTTT	TTTCATTTTC	7260
TACTCCTCTG	TTTATGTGAA	TTATAGATTG	ACAACCATTA	TATCACATTA	TCCATTAAAA	7320
ATCAAACAAA	TTTTCAGAAT	ATTTAGGCTT	GTTGGCACAA	ATTTTTCATT	TTTTTTGAAT	7380
ATATGATTCA	AATTGTCGTT	CGAAGTGTC	AAGACTACAG	TGAAAATAGG	AAATTTGACG	7440
CAGAACTTT	GGAGTTTAGG	AAGACATACA	GTAAAATGAA	ATACGGACGG	AACAATGTGA	7500
TTTTGGAATT	CAAATTAAAT	TATAACAATA	TTGTAGAAGT	ATCATTCTAG	TATTCAAGAT	7560
TCAGTTTACT	ATGTCTTTTC	ACACCAACCT	TATCCCGAAT	TCAATTACTT	TTGTGATTTA	7620
CATATATAGA	TTAAGACTAT	CTTTTATACT	TTAAAATTTT	TCGCTACCTT	ATCCACTATA	7680
TGCTCCTCGC	TATCACGTTT	CTATTCATAG	CCTACGATTT	CACTATTGCT	TTCTCTGACA	7740
ATTCTTATTT	CCTGCGTCAG	ACTTAAAACG	ATCTATCCCC	AGACCATTTT	AATCCGCTAC	7800
CTCACGATAG	TCAGGCTTGG	GGAGCGCTAT	TGTATTACCC	GGTAGTGGAG	CCCTACAGAG	7860
GACTTACACC	TCAGATGCAC	GACATGCCCA	TCGTATAAAA	AATCTCCTAC	CCAAGGTAGA	7920
AGATTTCAAA	CTTATAAAAC	TTAATCCGTC	ATGTCCGATA	CCAACATTCG	ATGCTCCAAT	7980
GGAATACTGC	ACATAACTAG	CAAGAAAATA	AAGCCTGACT	GAATCCAGAA	GAGAGCCAAG	8040
TCAAAAATTC	CGTGACACAGC	AACCACTGTA	AGGAAAGATA	GATAAAGGCC	GATAATCGGA	8100



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CGTTTCCCCG	ACTCCTGACT	CATATCCATC	ATCAAGCGAA	CAGGAGCAAC	AGAAGACAAA	8160
ACTAATAAAA	TAGTCCCCAC	AATTCCGTAA	CTCAGAATCG	TATCAATATA	AAGACTGTGG	8220
GCATGTTTCAT	GATAAGGAGC	ATGTATCCGA	GGATAAGAGT	TCATATAGGT	CAATGGCCCT	8280
TCACCCCAAA	AAGGATTTTG	CTTAAACAAG	GCCATCCCAG	CATCCCAGAT	AGAAATGCGT	8340
TCTTCCATAG	AAGAGTCTAA	AGTACCCATT	CGAACTCCCA	AATCACTAGA	AAAGAGGAAA	8400
CTCAAACCAA	TCGCGAAGAC	CCCAATACTA	AGCCAAAAGG	CCTTCCAGTT	TTTAATAGTC	8460
GTAAAGAGAT	AGATAATTGC	TCCAGCGATA	ATAGCAGGAA	AGGCAGTTCG	ATTTTGAGTA	8520
AAGTTCAAAC	CAAAGAGATT	AACAAAGCCT	GCAATCACAC	AGAATACTTT	CAACCAATTC	8580
AACTTGGTCG	TTGTAAACAG	ATAGAAAGCA	ATCATAATAC	AGAAACAACA	AATAATTCCA	8640
TAATAATTAG	GATTAAAGAA	GGTCACTTCT	GCCCCGTTCT	GATGCCACAC	CTGCATATTG	8700
GGTGAAAGAA	AAGCATAGTT	AAATTTCTTC	ACAATTTGGA	AATGTTCTAA	ACTGGCAAAA	8760
GCAGCTGACA	AGACACTACC	AAACAAGACA	AACTGCAAAA	TCAATCGAAA	GAATTTATGG	8820
GATAAAATCG	ACTGATAGTG	CAAAAAGAAA	ATAGTAAATA	GAAACATTCC	TACTGAAGCC	8880
ACAAGACCCA	TCCAATTTTG	TGCAAGAATG	GATATAACAG	TACTATAGCT	AAGAAAAAGA	8940
AGCAGCATCG	GATGCTCCCC	CATTTTCTGA	AGAATACTTT	TCATGTCTCC	TGTAAAAATC	9000
AAACTGATAA	TATATAAACA	GAGTACAAC	ACAAAAAGAT	AAAAGGGTAA	AAAGATACTC	9060
AGGATAATTC	CCAATAAAAT	CAGCTCTTTA	CTAGACAACC	CCTTCAGCTT	TTCAATAAAG	9120
CCTATTGATT	TCAAAATGAA	TCCTTTCTCT	CCAAATCAGC	TGATTTCAGAT	AATAGTAAGC	9180
TATCCTATAT	TGTACCACTT	TTTTAGCAAT	TTGAAAACAA	AGGAAACGTT	TTCCAAAATA	9240
AAAACCCAT	TTTATCCACC	ATATCAAGGC	TTCAAAATGA	TACTTCAACT	CCATTCTCAA	9300
TTACCCGATA	AGTCTGATTT	TGCAAAATCA	TTTCTACTAC	TGCTGTTACG	GACTTATCTT	9360
TATTTTGACG	TTTGATTACA	ATGCTGTGAG	CTGTTGGTGT	CTCTATCTCA	GTAGTCCCTT	9420
CTAGATCAAA	GGCTTCTGAA	CGGTTACGGA	AAGAAAATAG	ATTGAGAAGG	GCCTTCACAA	9480
CAGGTCGTTG	CACCTCTTTT	GCTATTTTCT	CGTTGCTATA	GTAATGACGA	TTAATATTTT	9540
GACCTTCTTT	AGTTTCTTCT	AATAATTTCA	AGTCATTCTT	GCCTGCTAAT	AGACCCACAT	9600
AGTAAATCTG	AGGAATACCT	GGGGCAAAAG	CTTGAATTAG	ACGAGCGAGA	AAATACTTGA	9660
CATCATCATC	TCCAAGCGCT	GAATAGTAGG	TTGAATTGAT	TTGGTAGATA	TCTAAGTTGT	9720
TATACTCGGC	ACTAGAGTAC	TTACGTTTGA	CATTGGCTCC	AACCTTATAG	AGTTCATTTG	9780
AAGCATAGTC	AATCTCCTCA	TCGGTCAGGA	TATCCTTGAC	ATCTACTACT	CCAATCCCAT	9840
CATGGGTATC	TAGCGTCGTA	AATTGCTTCA	TCGGGCTCAT	CTTTAACCAC	TTAGCCAAAC	9900

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GCTCTGTTCT	GGAAGTGTAA	AGAGTATAAA	GTGTCACCAT	TGGAAGAGCA	AAATCATAAA	9960
CATAGTAATC	ATGGTCTGCT	ATTTTAAACT	GAATCGAATA	GTGTTTCATGA	ATCTCAGGTA	10020
AAAGCTCTGT	CCCATACTCA	GCAGCGATAT	CTCGAACTTT	GTCCAATAAA	TCCCAAATAT	10080
CTGGTTCCAC	AAAGAAATCA	TTAGTATCCA	ATTTCTTCAC	TGCATAAGCA	AAGGCATCTA	10140
GACGAATCAA	ATCACACCCA	TTACTTGCCA	AGTGCTGAAT	GGTCTTACGG	ATAAATTCCA	10200
TAGTTACTTC	TTTGGTCACA	TCAAGATCAA	TCTGCTCCTC	ACCAAAGGTA	TTCCACAAAT	10260
GTTCCACTGA	ACCATCTTCA	AACACAATCT	CTTGCTTTGG	TGCACGATCC	TTACGCTTGT	10320
AAATTAAATC	TACATCAGAC	TGTGTCGGAC	GGTTTTCTGG	CCAAAACCTA	TCCCAGTTTA	10380
AAAAGAGAGC	TTTAAATTCA	CTGGCTTCAT	GTTTTTCTTG	ATAGTCCTTA	TAATACTTGG	10440
ATTGACGAGA	AATATGATTA	ATCATAAAAT	CAAACATAAG	ATAATATTTT	TCACCTAAAC	10500
GCTTCACATC	CTCCAATCA	CCAAAAGCTG	AGTCCACTTC	GTCGTAGTCA	ACTGGCGCAA	10560
ATCCACGATC	AACTGTTGAT	GGGAAAAATG	GTAAAAGGTG	AACTCCTCCA	ATAGCATCTC	10620
CAAAATGCTC	TTCCAAATTA	TCATATAAGT	CTTTAAGATT	ATTTCCAAGG	CTATCAGAAT	10680
AGGTAATCAA	CATGGTTTTA	TTTTGAATTG	GCATCATTAC	TCTCCTTTTT	CTAATTGAAG	10740
CCAAGTCTCA	TATGATCTGG	CTTCATAAAT	AAAATTCATT	TTAAATCTCT	ATTTATCATC	10800
AAACTCGTAC	TAATATAGAC	TGTGATAAAC	AAAGTACTAC	TTTCTTGTTT	TCTGCATAGA	10860
ATTATCAACA	AGCTAAACTC	TTCTCTGTG	TCAAAGACTA	TAGATTCCAT	GAGCTCTTCT	10920
TATACTCTTC	GAAAATCTCT	TCAAACCACG	TCAGCTTCAC	CTTGCCGTAG	GTATGGTTAC	10980
TGACTTCGTC	AGTTTCATCC	ACAACCTCAA	AACAGTGTTT	TGAGCAACCT	GCGGCTAGCT	11040
TCCTAGTTTG	CTCTTTGATT	TTTATTGAGT	ATTACTTCAC	TGCCCCGTTG	CTCATTCCTG	11100
AAATGATATG	GCGTTGGAAG	AAGAGATAGA	CAATGGTGAT	ACTGATAATG	CCGACCACGT	11160
AAGAGGCAAA	GCTTGGTCCG	TAGTCGTTGA	AATATTGGCC	TGCGTAGTTG	TATTGGAACA	11220
AAGGCAGAGT	CCACATTTTG	GAATCCCGGT	TCAAGACAAG	GAGTGGCAAC	ATGAAGTCAT	11280
TCCAGAACCA	AAGGGCATTG	ATGATCATGG	TTGTGCGCATG	CATCGGTTTC	ATCATTGGA	11340
AGATGATGCG	GAAATAGGTT	GTAAATTGAT	TAGCCCCATC	GATCTCTGCT	GCTTCATCCA	11400
GACTTTCTGG	AATCGAGATT	TTGATATAGC	CAACATAGAG	AAAGAGGGTC	TGTGGAATCG	11460
CATAGGTCAA	GTAGAGCAAG	ATCAAACCAA	AGGTATTAGC	CAAACCGAGT	TTACTCATCA	11520
TAACCGTAAT	CGGAATCATG	ATGACTTGGA	AAGGTACGAA	GATTCCGAGG	ATTAAGAGGG	11580
TATACATGAT	GGTAAAGGCT	TTTCTTTTAC	TCATATTGCG	AGCGATGGAG	TAGGCTGCCA	11640

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TAGGGATAAA	GATCATTACT	GCAAGTAAAG	ACAAGACAGT	GATGACGACA	GAGTTCCAAT	11700
AATAGCCTCC	AATCCCATCA	GCTAAGAGAC	GGCTAAAGTT	GTCCCATGTG	AAGTTGGTTG	11760
GAAAGCCAAA	GAAATTATCT	ACAATATCCT	TAGTGGGTTT	GAAGGAACTA	AAGAGGGTAG	11820
CAAGGAGCGG	CACTAAAATC	AGAACCGATC	CTAGAATCAA	TAGAATGTAT	TTGCCAATCA	11880
GGGCTTTTCT	TTCATCTTGT	TTCATCATGC	TTCTCCTCTT	AAATTTCAAA	TTTCTTAGAT	11940
ACTCTCAATT	GGATGATCGA	AATCACTACA	ATTAAGAAGA	ACAAGATTAC	GGCAATGGCA	12000
TTGGCATAAC	CGAATTGGTT	GTTTTTAAAG	GCATAGTTAT	AAACCAAGAG	CCCAAGTGAG	12060
GTTGTGGCAT	TGTTTGGACC	ACCACCGGTC	ATGGCAAAGA	CTTGGTCAAA	GGCAGTCAGC	12120
CCACCTTTTA	GGGCTAGGAT	AAAGACCATA	GAGACACTTG	GTAGCAAGTA	AGGCAATTCA	12180
ATGTTCCAGA	AAACTTGCTT	GCTAGTCGCA	CCATCAATCC	TTGCTGCCTC	TGTAATCTCA	12240
GTTGGAATAG	ATTGCAAACC	AGCTAGGAAG	ATGATGATGG	GCATAGCCAC	CCCTTGCCAA	12300
AGAAGGACAA	AGACAGCCGC	AAAGATTGCT	CCCCACTTAG	TCCCTAAAAG	ACTGGTTTGG	12360
AAAAATTCAA	TATGAAGGGC	ATTTCCAATC	GCTGGAAGAC	CGTAGTTGAA	GACTTGCTTG	12420
AAGATCAAAG	CCACTGTCAA	ACCAGATAAA	ACAGCTGGGA	AGAAGAACCA	AGCACGGAAG	12480
AAGGTTTGGC	CTTTGATTTT	AGAATTCAAG	ACACGCGCAA	TGAAGATCCC	GAGTGCAATC	12540
TCACCAACCA	CCATGGCAAT	CGCAATGATT	GCGGTAAAGC	CAATCGCATT	CATGAATTTT	12600
GGATCCATGA	AGAGGAGCTT	AAAGTTGTTT	AAGCCAACAA	ATTTGTAGTT	ATAAGTCAAT	12660
CCTGTCCAGT	TGGTAAAAC	GTAAAAGGCT	CCTTGAAACA	TCGGCACATA	GAAGAAAATT	12720
GCTTGTAACA	AGAGGGGGAT	GACCACAAAA	GCCCATGCCC	AATATTTTGT	TAATACTTTT	12780
TTCATAGTCT	CTCTACTCCT	AATCCACATC	CGCTTTCATC	GGGTAAAGA	AGGCATTCAA	12840
ATCATTGACC	ATGCCTTGTT	TATCACCGGT	CAAGACATAG	TTCATGGTCA	AGGTATGGAA	12900
GTCTGCTTCA	CTGGTCCAGT	ATTGTTGCAA	CCAGACCAAG	TGACGATCCG	TAAAGGCATA	12960
TTCGGTCATA	CCAGCAAGCG	GTGAATCTTC	TCCTGCTTGT	TTGACCCCTT	CGATCGCTGT	13020
TGGAGATCCG	TCCACATCGT	AGTATTTTTG	CATGACTTCT	GGACGGGTCA	TATATTCCAC	13080
AAAGGCATTG	GCTTCTTTTG	GATGTTTGGT	GGTGGCTGAG	ATAGACCATG	CCAAGTCTCC	13140
CGCACCAACG	GTTAAGCTTT	GTCCTTTTTT	TTTTCTTGGA	ATCATGAAGG	TCCCAATCTT	13200
AAAGTTCGGT	TTTTGTTCAT	TAATCGCTGT	GATCGCCCAA	GACCCATTTG	GTGTCATGAG	13260
GACATCCCCA	CGTGCGAAGG	CTCCGATAAC	ATCGGTATAG	CCAGCACCTT	CCCAGTTCTT	13320
TTGCTTAGAT	CCATTGATGC	GAAGGATGTC	CATGACCTTG	ATATCATCTT	TCATAATCGG	13380
ATCCGACAAT	TTAATGGCAT	TTGGTTGAGA	ATAACGAAGG	TATTGATTTG	CTTCTTTTCC	13440



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TCCACCTGTT	GCTGTCGCAA	AGGCTAATTG	ATTGTAACCA	TTGAGTGTCC	AAGCATCTGC	13500
ACCTGCAATT	CCAAATGGTG	TTTGTCTTTT	AGCAACGATA	TCTTTGACTA	ACTGTTCAAA	13560
TTCATCCCAG	GTTTCAGGAA	CCTTCAAGCC	CAGTTCCTCG	AATTTATCTT	TGTTGTAGTA	13620
AATTCCATAA	GCATTAGCTG	TAAAAGGAAC	GTTGTAAACT	TTTTCGTTTA	CAGCATATTT	13680
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ACCTGCTTTT	GCCCATTCTT	GCAGTTCGAT	GGACTGTGGG	TAAATATTGA	CCACATCAGG	13800
CACATCTCCT	GCGAGAACGC	GTGTCTTCAA	TACTTCACCA	GCATTTGGTA	CATTGACGAC	13860
TTTGACCTTG	ATCTTAGGGT	TTTCCTTCTC	AAAATCACGA	GTGATTTCTT	CCAAGGTTTT	13920
GGTCATTTCT	TTTTTCTGGT	TGAAATACTC	GATGGTCACT	GTGCCATCCG	CAGATTTACC	13980
ATAGTTGGAG	CAAGCGCCGA	GCCCAAACAA	AGCTAAACCT	GTAGTTGCAA	GAAGTCCGAT	14040
TTTTTTATAC	CATTCCATTA	GAAAGCCTCC	TTTATAAATT	TATACACCCT	TATTGAACTG	14100
CACCCCAAAA	GTTAGACAGA	ATAAATCTAA	CTTTTGGGGT	CAGTACATAT	CATAGTTTTC	14160
TAAAAATATA	CTGTCTACTC	AAAAAATCTC	CTTGGGATAA	GATAACAGTT	AAGCCCGCAT	14220
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CATCCAAATC	TTTTAATTTT	AAAGTTGTTT	CCATGGTCTC	TACAACAGAT	AAAACGCGAA	14340
CGTAGGTTAC	AATCGTTTGA	TTTCCGTAAT	TAAATTGTAC	AGCTGCTTCA	TTGGATACAG	14400
TATCAGGATT	AATTAGTCTA	TACTGCTGTC	CTAACTGAAC	TACTGGTCGT	AATTCCTTAT	14460
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GTTTCATAGCC	CAAATTTCCC	ATCATTGCTA	CAAGGCCACG	TGTTTCTAAT	GGTGTCAATC	14580
GTCCCATCTG	ATGATTCGGT	ACTGCTGACA	CATGAGCCCC	CATAGAAATG	GTTGGATAGA	14640
GATAGGATGA	ACCGTATTGA	ATTGGTAAAC	GTGCAATGGC	ATCAGTATTA	TCACTAGCCC	14700
AGACTTGTGG	GAAATAGCGC	ATCATACCAA	GATCATTTTCG	TCCACCACCA	CCAGAGCAGG	14760
ACTCAAAGAG	AATATGGCTG	TGCTTCTCTG	TCAGATAAGA	AACGAGTTCA	TAAAGCCCCA	14820
GCATGTACTG	ATGAGATTGC	ATCTGTGTCT	CTAGATAAGT	TAATCCATTC	CCTAGCTTAG	14880
TGATATTGCG	GTTCATATCC	CATTTAATGT	AATCAATATC	ATGATAAAAT	AGGAGTTGAT	14940
CTAAGACACT	TTTCAAGTAT	TCTACTACCT	GAGGATTGGC	AAGATTAAGT	ACTAATTGAT	15000
TCCGAGAATA	AGTATGCTCA	TAGCCAGGAA	CCTGAATAGC	CCAGTCAGGA	TGTTGACGAT	15060
ACAAATCACT	ATCTACAGAA	ATCATTTTCGG	GTTCTAACCA	AAGTCCAAAC	TGCAAACCTC	15120
TTTCATGGAT	AGCTGAAATC	AGACTTTCTA	GACTTCCACC	CAGTTTTTCC	TCATTAACAA	15180

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CCCAATCACC	TAAAGCACGA	TTATCATCAA	AACGATTGCC	AAACCAACCA	TCATCTAATA	15240
CAAAAAGTTC	AATGCCAACT	TTCTTAGCTT	CATCTGCTAA	CTCTAACAGT	TTTTCTCTCT	15300
GAAAGTCAAA	GTAAGTAGCT	TCCCAGTTAT	TGATTAGAAT	TGGACGTTCT	TTTTTAGAAA	15360
ATTCACCTAG	CATAATGTGC	TTCAGTACAA	AATTCTGACT	TTCATGACTA	ATACCAGTTA	15420
ATCCCTGATC	TGAATGAGTC	ACTAAAGCTA	CCGGTGTTTC	AAAGTATTCC	TCAGGAGCTA	15480
ACTTCCAAGA	AAAGTTTTCT	GGATTAATGC	CAATAGCCAC	CCGAACCTCA	TTCAATTGAT	15540
TTTTTTGAAC	AAAAGCTTCA	AAGTTGCCAC	TATACATTAG	TTGAATAGCA	AACACATTCC	15600
CAGCATCCTC	TGTGACTCCT	TGTTTCGCATA	GTAGAAGAGC	TGGTGTTTGA	GCATGACCAG	15660
AAGCACCTCG	GTTTGAACCTA	ATCGAAAAGA	TTCTTGTTTC	TACCTGTTGA	CGTCTAACAG	15720
TCTTTTCACG	AGCATAAGCA	CCCTGCAGAG	TTACTATTTT	GTAATCTGCA	GCTGGAAAAT	15780
CAGCCATAAA	AGAAAAATCT	TTATGGATGA	CAACTTCCTG	ATTACTATTA	TTATCTAATT	15840
TACTGTAGCT	AGCAATAGTC	GCATCATTAT	TAAAAGTAGT	ATAATACAAA	GTCAGACTAA	15900
GTTGAGCCTT	AGAATCTTCT	AACATTAAGA	CAAGAGTCTC	TGTATCGTCC	ATGCTATGTG	15960
GAGAAGGTAA	GCCCTGTGGA	CCATTCTGAC	CTTTTAAAAT	CTTTGCTTCT	ACAAATCGAA	16020
AGTCTGTTAC	TTCAGTTACA	CTATGCTGAA	CCTGTATGGT	TGGTTTCCTA	AAATCTCCTA	16080
AGCCATGTTG	TCCAAAATC	TGTCGCTGAG	TATCTAAACT	AAAGGTTCTG	TTAGTAGCCG	16140
TTGGATTTCC	TGAAAAGGCA	TGGTCTCGTT	CATAAACACT	ATTGGAACCT	TTATAGTTCT	16200
TAATAGTCTT	TCCTAAATGT	TTCAAAAGTA	AGTAGCCATT	TCGATTTTCA	ATAATCAAAC	16260
TTAGATTTTT	ACTCTCAACA	TAAAATAGAT	TATTCTCTAT	CCTAACTCCC	ATTTACTTCA	16320
CCTCATCACT	TTATTGATTA	TATTTTATCA	CCTGAAATCG	CTTTCCAAAA	TAGAAAAATG	16380
TCTCAAGAAT	ATGGTAAAAT	GTTAGGTAGG	AGGTAGCACA	TGTTAGTTTT	TTCAGAATAC	16440
CAGACTGGAA	CAATCGACCT	TGCCCTAAGC	TTTTATGGAT	ATGAGGAATG	CACACCTAAT	16500
TACTCTTTTG	GTCCAGCCAT	TCGTGATACA	TACGTTCTAC	ATTACATTAC	TAAAGGACAA	16560
GGAAAATTTT	ATTACAAGGG	TAAAATTGTT	GATTTAAAAG	AAGGAGATTT	CTTTCTATTA	16620
AAACCAGAGG	AACTAACCTT	TTATCAAGCA	GATAGTAAAG	AACCTTGGGC	CTACTACTGG	16680
TTAGGAATCA	CTGGAGGGAA	AGCCCCTGAT	TATTTTGCTC	TTTCCCAAAT	TTCTGATCAA	16740
TCCTATCTCA	TCCAATCTGA	AACTTGTCAT	ACCCAGACTA	CTGCAAAACT	CATCTCAGAC	16800
ATTGTCCGCT	TCGCTCAGAT	TACAAAATCA	AGTGAATTAG	CTCAACTCCA	TATCATGGGA	16860
CAACTTCATG	AACTGATGTT	TCATCTGGGA	ACTATTGCTC	CCAATCAGAA	AAAAAAGAAT	16920
ATTTTCATCA	CCCACCAACT	CTATCTTGAA	TGCAAACGAT	TAATTGATAG	CCACTATCCT	16980

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CAATCACTTA	CAATTCAAGA	TTTAGCAAAA	GAACTATCCG	TTCACAGAAG	CTACTTATCA	17040
AGCGTATTCA	AAGAATTTAA	TACCTTATCA	CCCAAAGAAT	ACCTACTCTA	CGTTCGAATG	17100
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GTAGGTTTTT	CAGATCCACT	CCATTTTTTCG	AAAGCTTATA	AACAATACTT	TAATCAGACT	17220
CCAAGTCATA	CAAGAAAAGA	ATACTCTCAA	TACCAACTAG	TAAGAAAGGC	AACATTATGA	17280
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AAATCGCAGA	AAAACATATCC	CTAAGCCGAA	CAGCAATTTG	GAAAGCCATC	AAGCGACTAG	17400
AACAAGAAGG	CATTGAAATT	GATAGTATCA	AAAATAGAGG	ATATAAACTG	ATGAATGGTG	17460
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AAACAAAATC	AACACAATA	GATGCAAAAG	AAGCAATTGA	TTTAGGCCAT	GAAGCAAATA	17580
CCCTCTATCT	AGCTTCCTAT	CAAACAGCAG	GCCGAGGCCG	TTTTCAACGT	TCCTTCTACT	17640
CACCACAAGG	TGGTATTTAT	ATGACACTCC	ATCTTAAACC	AAATCTCCCC	TATGACAAAT	17700
TACCATCCTA	CACACTACTT	GTAGCTGGAG	CTGTCTACAA	AGCCATTAAG	AACCTAACTT	17760
TAATAGATGT	CGACATAAAA	TGGGTCAATG	ATATCTATCT	AAACAATCAT	AAAATTGGAG	17820
GAATCCTTAC	TGAAGCAATG	ACCTCTGTAG	AAACTGGCTT	AGTCACAGAT	ATCATTATTG	17880
GAGTAGGTAT	CAATTTCACT	ATTAAAGACT	TCCCTCAGGA	ATTAAAAGAA	AAAGCTGCCA	17940
GCTTATTTAA	AGCTACAGCT	CCTATAACAA	GGAATGAATT	GATCATAGAA	ATCTGGCGTG	18000
CTTTCTTCGA	AACACCAGCA	GAAGAGCTAT	TATACCTATA	CAAAAAACAG	TCATTCATTC	18060
TAGGAAAAGA	AGTCACTTTC	ACACTAGAGC	AAAAAGACTA	CAAGGGACTT	GCTAAAGACA	18120
TCTCAGAAAA	TGGAAAACCT	TTAGTTCAAT	GTGATAACGG	AAAAGAAATC	TGGCTAAATA	18180
GTGGCGAAAT	TTCTCTCAAT	AGTTGGAAGT	AAAATAACAC	AATTATAATA	TAAACGATAT	18240
AAAAATAACT	TCAGATTAGT	AATTCAATTA	AGTTTACGG	ATCTGAAGTT	TTATTGGCTC	18300
TAAAAATAAA	AAAGAGAGTT	ACAGACTCTC	ATTAAAACGG	AGAATAAGGG	ATTCTGAACCC	18360
TTGCGCCAGT	TACCCGACCT	AACGATTTAG	CAAACCGTCC	TCTTCAGCCT	CTTGAGTAAT	18420
TCTCCAATTA	ATGGGCACGA	GTGGACTCGA	ACCACCGACC	TCACGCTTAT	CAGGCGTGCG	18480
CTCTAACCAC	CTGAGCTACG	CGCCCAAGTT	AAAAAAGTTG	GTAATTTGAA	CAAAGTTCAA	18540
AGCGGGTGAC	GAGAATCGAA	CTCGCGACAA	CAGCTTGGA	GGCTGTAGTT	TTACCACTAA	18600
ACTACACCCG	CATAAATACT	ATCAATAAAA	TGGCGCGAGA	CGGAATCGAA	CCGCCGACAC	18660
ATGGAGCTTC	AATCCATTGC	TCTACCAACT	GAGCTACCGA	GCCTTATTGC	GGGAGCAGGA	18720



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TTTGAACCTA	CGACCTTCGG	GTTATGAGCC	CGACGAGCTA	CCGAGCTGCT	CCATCCCGCG	18780
TTAATAATAT	AAAAGGAGGA	TGTGGGATTC	GAACCCACGC	ACGCTTTTAC	ACGCCTGACG	18840
GTTTTCAAGA	CCGTTCCCTT	CAGCCGGACT	TGGGTAATCC	TCCAATATTC	AAATGGACCT	18900
TGTAGGACTT	GAACCTACGA	CCACTCGGTT	ATGAGCCGAG	AGCTCTAACC	AGCTGAGCTA	18960
AAGGTCCGAC	AAGATCATT	TAGCGGCGAA	GGGGATCGAA	CCCCCGACCT	CCCGGGTATG	19020
AACCGGACGC	TCTAGCCAGC	TGAGCTACAC	CGCCATGAAT	CGGGAAGACA	GGATTCTGAAC	19080
CTGCGACACC	TTGGTCCCAA	ACCAAGTACT	CTACCAAGCT	GAGCTACTTC	CCGAGTTAAA	19140
TAGAAAAATG	CACCCTAGAG	GAGTCGAACC	TCTAACCGCC	TGATTCTGTAG	TCAGGTACTC	19200
TATCCAGTTG	AGCTAAGGGT	GCTCCATATT	ATGCCGAGGA	CCGGAATCGA	ACCGGTACGA	19260
TCGTTACCAA	TCGCAGGATT	TTAAGTCTTG	TGCGTCTGCC	AGTTCCGCCA	CCCCGGCCTC	19320
TCTAAGCGAA	CGACGGGATT	CGAACCCGCG	ACCCCCACCT	TGGCAAGGTG	GTGTTCTACC	19380
ACTGAACTAC	GTTCGCACTG	TTTTCTTCTA	TCTAAAAATG	CCGGCTACAT	GACTTGAACA	19440
CGCGACCCTC	TGATTACAAA	TCAGATGCTC	TACCAACTGA	GCTAAGCCGG	CTCATTTGTT	19500
ATATCTTAAT	GCGGGTTAAG	GGACTTGAAC	CCCCACGCCG	TTAAGCGCCA	GATCCTAAAT	19560
CTGGTGCGTC	TGCCAATTCC	GCCAAACCCG	CATATATGAC	CCGTACTGGG	CTCGAACCAG	19620
TGACCCATTG	ATTAAAAGTC	AATTGCTCTA	CCAAGTACG	TAACGAGTCT	AAAATAACTT	19680
GCGTTACCTT	AAACGGTCCG	ACGGAATCGA	CCCGGTAC			19718

(2) INFORMATION FOR SEQ ID NO: 100:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4117 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 100:

CCGTGGAAAA	GTCTGGATAG	TGAATGGTCT	TCACACAATG	ACCTGAAAGA	AGCCTGAGAA	60
TAATTATGGA	GAGTAGCATT	CTGAGAGGTG	TTAGCAGAAC	CATATGACAG	AGCTGTTTGA	120
AGAGGGAATA	TTGAGGAGAA	AAATCCTGAG	CCTACCAGTT	GGAGTTGGAA	AGAGCTGACT	180
GTTAGATCAT	GGTTTATTAT	CCACAACCTG	TGGATAACTT	TGTGAATAAG	AGAAGTTGCT	240
AAAGAAGGAG	ATATATAACG	ATGAAGAAAA	TCAAACCGCA	TGGACCGTTA	CCAAGTCAGA	300
CTCAGCTAGC	TTATCTGGGA	GATGAACTAG	CAGCTTTTAT	CCACTTCGGT	CCTAATACCT	360
TTTATGACCA	AGAATGGGGG	ACTGGACAGG	AGGATCCTGA	GCGCTTTAAC	CCGAGTCAGT	420

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TGGATGCGCG	TGAGTGGGTT	CGTGTGCTCA	AGGAAACGGG	CTTCAAAAAG	TTGATTTTGG	480
TGGTCAAGCA	CCACGATGGC	TTTGTCTTTT	ATCCGACAGC	TCACACAGAT	TATTCGGTTA	540
AGGTCAGTCC	TTGGAGGAGA	GGAAAGGGCG	ACTTGCTCCT	TGAAGTATCC	CAAGCTGCCA	600
CAGAGTTTGA	TATGGATATG	GGGGTCTACC	TGTCACCGTG	GGATGCCCCAT	AGTCCCCCTCT	660
ATCATGTGGA	CCGAGAAGCG	GACTACAATG	CCTATTATCT	GGCTCAGTTG	AAGGAAATCT	720
TATCAAATCC	TAACATATGGG	AATGCTGGTA	AGTTCGCTGA	GGTTTGGATG	GATGGTGCCA	780
GAGGAGAGGG	CGCGCAAAAAG	GTTAATTATG	AATTTGAAAA	ATGGTTTGAA	ACCATTCGTG	840
ACCTGCAGGG	CGATTGCTTG	ATTTTTTCAA	CAGAAGGCAC	CAGTATCCGC	TGGATTGGCA	900
ATGAACGAGG	GTATGCAGGT	GATCCACTGT	GGCAAAAGGT	GAATCCTGAT	AAACTAGGAA	960
CAGAAGCAGA	GCTGAACTAT	CTTCAGCACG	GGGATCCCTC	GGGCACGATT	TTTTCAATCG	1020
GAGAGGCAGA	TGTTTCCATC	CGTCCAGGCT	GGTTCTACCA	TGAGGATCAG	GATCCTAAGT	1080
CTCTCGAGGA	GTTGGTCGAA	ATCTACTTTC	ACTCAGTAGG	GCGAGGAACT	CCACTCTTGC	1140
TTAATATTCC	GCCGAATCAA	GCTGGGCTCT	TTGATGCAAA	GGATATTGAA	CGACTTTATG	1200
AATTTGCGAC	CTATCGCAAT	GAGCTCTATA	AAGAAGATTT	GGCTCTGGGA	GCTGAGGTAT	1260
CTGGTCCAGC	TCTTTCCGCA	GACTTTGCTT	GTCGCCATTT	GACAGACGGC	CTTGAGACCA	1320
GCTCTTGGGC	AAGCGATGCA	GACTTGCCCA	TCCAGTTAGA	ACTCGACTTA	GGTTCTCCTA	1380
AAACTTTTGA	TGTAATTGAG	TTAAGAGAAG	ATTTGAAGCT	AGGGCAACGA	ATCGCTGCTT	1440
TTCATGTGCA	AGTAGAGGTG	GATGGTGTCT	GGCAGGAGTT	TGGTTCGGGT	CATACTGTTG	1500
GTTACAAACG	TCTCTTACGA	GGAGCAGTTG	TTGAGGCACA	GAAGATACGT	GTAGTCATTA	1560
CAGAATCACA	GGCTTTGCCT	TTGTTGACCA	AGATTTCCCT	TTATAAAACT	CCTGGATTAT	1620
CAAAAAAAGA	AGTTGTTTCA	GAACTAGCAT	TTGCAGAAAA	AAGCCTAGCT	GTGGCAAAGG	1680
GAGAAAATGC	CTATTTTACA	GTTAAGCGCA	GAGAATGTAG	TGGTCCTTTA	GAAGCTAAGA	1740
TTTCGATTCA	ACCGGGGACA	GGTGTCCATG	GTGTCGCCTA	TCAGGATGAG	ATTCAAGTCC	1800
TTGCGTTTCA	AACTGGTGAG	ACTGAAAAAA	GTCTGACGCT	ACCAACCTTG	TATTTGCGAG	1860
GAGATAAAAC	CTTGGATTTC	TATCTGAACC	TAACGGTGGA	TGGTCAGCTT	GTGGATCAAC	1920
TTCAAGTCCA	AGTTTCATAA	AAGAAGAACC	TTTGC GCGAT	GCAAAGGTTC	TTTTGGTTAT	1980
TAGTGACTTG	GTAACCAGCT	GAGGGTGAAA	GTTAGTTGTT	CAGCTTTTAA	GAGGTCTTGG	2040
TGTTGAATAG	TTGATACGAG	TGTTTTGTCC	AGTCGGCATT	CTTTGACAAA	GTAAAAATGG	2100
TTGTGGTTTT	GTTTAGTATG	GATATCCAGC	CATTTATCTT	CTTTAGCGAG	GTAGACTCGT	2160

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AGATGGTCAA	AGAGAGGGAT	TCCGAGGTCA	TAGCTTGCTT	TTCCTGGACA	GGTTGGATAA	2220
AATCCGAGAG	CTGACCAGAT	GTACCAAGCA	GAGAGACTAC	CATTGTCTTC	ATCTCCAGGA	2280
TAGGCTTCCC	AACTTGGGTG	AAAAGCTTTC	TGACGGAGCG	TCTTGATAAG	AAGGGCAGTG	2340
TAGTCAGGGT	AATCGCTGTA	ACGGAAGAGA	TAAGGAATGT	GGAAACTAGG	CTGGTTGGAA	2400
ATGGCTATTT	GTCCAAAAGG	AGCAGTAGCC	ATCTCGCTCA	TTTCGTGAAT	TTCGTAACCA	2460
TAGCCTGTTG	TTTCAAAGAG	GGGAGCATCT	TGACAGGCTT	TCAAAGATA	GTTGCTAAAG	2520
GTTTCTTTTC	CACCCATCAG	TTGGATTAAG	CCAGGGATGT	CGTGGAGAAC	GCCTAAAGTA	2580
GCTTGAATGG	CAGAGCATTC	AGCGTAGTCT	CGCCCCAAC	TATAAGGAGA	GAAGTCAGGG	2640
TGAAAGTTTC	CTTGATTGTC	TCGTGCTCGC	ATGTAACCTG	TCTCAGCGTC	AAATAGCTGG	2700
CGGTAATTTT	GTGAAGCAGC	CTTGTAGGTT	TCAGCGATTT	CTATGTTCTC	TAGTTTTTTG	2760
GCACAGCTGG	CGATACAAAA	GTCACTATAG	GCATAGTCTA	GAGTATGGCT	AACACTTTCG	2820
TGGTGGTCGG	TAGAGAGGTA	ACCTAGTTCT	TGGTATTGGG	CTAGTCCGTG	GCGGCCATTG	2880
ATGCCGAGAG	GGTCGGCTTT	GCTGGCTGTT	TCGAGCATGG	CTTGGAAGAG	TTCTCCTTCT	2940
AGGTCGGGGG	TCATGTCCTT	GCAGGCGCTA	TCTGCGATAA	TACCGTCTAA	AAGTGACCT	3000
GGCATCATAC	CCCGTTCATC	TGGAGCCAGC	CATTTTGGAA	GGAAACCAGT	ATCGCGGTAG	3060
CTATTGAGGA	AACCTTCTAA	AAAGCGTTGA	TAGTGCTCCG	GTATGATAAG	GGCAAAGAGG	3120
GGGAAGGTGG	TGCGGAAGGT	ATCCCAGAAA	CCATTGTTGC	TAAAGAGGAC	ACCAGGCTTG	3180
ACAGTACCAG	TAGCCAGATC	CATGTGGATG	GCTTGCCCTG	ATTCATTAAT	CTCATAAAAA	3240
GTCTGTGGGA	AGAGGAAGAG	TCTGTAGAGG	CAGTGGTCAA	AGAAGGTTTC	GTCAGCCTCT	3300
CCTGTCTCTA	TAATGTCAAA	ACGATGGAGG	AGATTTTCCC	AATCCACTTG	GGCACTTGAT	3360
TTACAGCTAT	CAAAATCTTC	TTGAGGTAGA	TTGATTAGAG	CTTGAGAAGG	AGAGATGAAA	3420
GAAGTGGCTA	GTTGCATCTC	GGTTTGAATA	CTTGCTAAGT	CAATTCGCCA	GTCTCCAGCT	3480
TCTTGGCTGA	TAGCAAGAAT	ATCCGTGTTT	ATTTGCAGGG	CAGTGAACAT	CGTTAGCGAA	3540
TTTTTGTTAG	TTTCAGTTTT	ACCTTCTTGT	CGCAGGGCAA	GAGTCCGCTT	ATCTACTTGC	3600
TCTACTGTCA	GTTTCATCTG	TGCGTGAAGA	TAGAGGGAGA	GGGCTTTGCC	TTGCTTTTGA	3660
TTCAAACGAA	TAGAAGCACC	ATAGCAAGTC	GGTGTGAGCT	GGGTTTCAAT	CTGATAACGC	3720
AGAGAAAAGA	GCTTCAAATA	GTGAGGCTGG	AAGCAAGCTT	TATCTATATC	ATAAGAAGAC	3780
TGGCGGTGAA	AGAGGCTGTC	TCCCCCAGT	TGACTGGTGA	CAGGTGTCAG	AAGGAGCCAA	3840
GAGTAGTCCC	CAATCCAAGG	ACTGGGCTGG	TGAGTTAATC	GAATCCCCTG	AAAGATAGGC	3900
AGATGTGGAT	CAAAAAACCA	AGATCCATCC	TGGTCACTGG	TCTGGGGCAC	AAAGTAATTC	3960



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ATCCCAAAAG GCACGCCTGT GTATGGCAGG GTATTTCCCC GAGAAAAGGC ATGCTTGTTG	4020
GTAGTTCCAA AACGGGTATC GATGGTATCA AGTAGTGGTT TCATAGTCTT TCCTTTAGCT	4080
GTTTTTCTAC ATTATATCAG TAATAGAGGG CCTTTAG	4117

(2) INFORMATION FOR SEQ ID NO: 101:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2727 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 101:

CTGGTTCAAT TATTATTCAC TCTAAGTAGT CATATGTTCT TTATTTATGT GAGTTTTTAC	60
CTTTTAAAGG ATCTTGTTAG ATGGGAGAAG GTTTTAAAAG TGACAGATGA TAATACAAGA	120
AAAGTTCGTT TATTAGTAGC CTTTTTTAGC ATTGTCATAG GCTACATCCT GAGTTCTTTC	180
TTTATTAGCC TGTATCATTT GTGGCAAGAA GCGCTTAGAG GATTATTATG AAATCAAGAG	240
TAAAGGAAAC GAGTATGGAT AAAATTGTGG TTCAAGGTGG CGATAATCGT CTGGTAGGAA	300
GCGTGACGAT CGAGGGAGCA AAAAATGCAG TCTTACCCTT GTTGGCAGCG ACTATTCTAG	360
CAAGTGAAGG AAAGACCGTC TTGCAGAATG TTCCGATTTT GTCGGATGTC TTTATTATGA	420
ATCAGGTAGT TGGTGGTTTG AATGCCAAGG TTGACTTTGA TGAGGAAGCT CATCTTGTCA	480
AGGTGGATGC TACTGGCGAC ATCACTGAGG AAGCCCCTTA CAAGTATGTC AGCAAGATGC	540
GCGCCTCCAT CGTTGTATTA GGGCCAATCC TTGCCCGTGT GGGTCATGCC AAGGTATCCA	600
TGCCAGGTGG TTGTACGATT GGTAGCCGTC CTATTGATCT TCATTTGAAA GGTCTGGAAG	660
CTATGGGGGT TAAGATTAGT CAGACAGCTG GTTACATCGA AGCCAAGGCA GAACGCTTGC	720
ATGGTGCTCA TATCTATATG GACTTTCCAA GTGTTGGTGC AACGCAGAAC TTGATGATGG	780
CAGCGACTCT GGCTGATGGG GTGACAGTGA TTGAGAATGC TGC GCGTGAG CCTGAGATTG	840
TTGACTTAGC CATTCTCCTT AATGAAATGG GAGCCAAGGT CAAAGGTGCT GGTACAGAGA	900
CTATAACCAT TACTGGTGTT GAGAACTTC ATGGTACGAC TCACAATGTA GTCCAAGACC	960
GTATCGAAGC AGGAACCTTT ATGGTAGCTG CTGCCATGAC TGGTGGTGAT GTCTTGATTC	1020
GAGACGCTGT CTGGGAGCAC AACCGTCCCT TGATTGCCAA GTTACTTGAA ATGGGTGTTG	1080
AAGTAATTGA AGAAGACGAA GGAATTCGTG TTCGTTCTCA ACTAGAAAAT CTAAAAGCTG	1140
TTCATGTGAA AACCTTGCCC CACCCAGGAT TTCCAACAGA TATGCAGGCT CAATTTACAG	1200

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CCTTGATGAC	AGTTGCAAAA	GGCGAATCAA	CCATGGTGGA	GACAGTTTTTC	GAAAATCGTT	1260
TCCAACACCT	AGAAGAGATG	CGCCGCATGG	GCTTGCATTC	TGAGATTATC	CGTGATACAG	1320
CTCGTATTGT	TGGTGGACAG	CCTTTGCAGG	GAGCAGAAGT	TCTTTCAACT	GACCTTCGTG	1380
CCAGTGCGGC	CTTGATTTTG	ACAGGTTTGG	TAGCACAGGG	AGAAACTGTG	GTCGGTAAAT	1440
TGGTTCACCT	GGATAGAGGT	TACTACGGTT	TCCATGAGAA	GTTGGCGCAG	CTAGGTGCTA	1500
AGATTCAGCG	GATTGAGGCA	AGTGATGAAG	ATGAATAAGA	AATCAAGCTA	CGTAGTCAAG	1560
CGTTTACTTT	TAGTCATCAT	AGTACTGATT	TTAGGTACTC	TGGCTCTAGG	AATCGGTTTA	1620
ATGGTAGGTT	ATGGAATCTT	GGGCAAGGGT	CAAGATCCAT	GGGCTATCCT	GTCTCCAGCA	1680
AAATGGCAGG	AATTGATTCA	TAAATTTACA	GGAAATTAGG	CTGGAGAACC	AGCCTTTTTTC	1740
TAAAGATAAG	GAGAAATATG	AACAAAAAAA	CAAGACAGAC	ACTAATCGGA	CTGCTAGTGT	1800
TATTGCTTTT	GTCTACAGGG	AGCTATTATA	TCAAGCAGAT	GCCGTCGGCA	CCTAATAGTC	1860
CCAAAACCAA	TCTTAGTCAG	AAAAACAAG	CGTCTGAAGC	TCCTAGTCAA	GCATTGGCAG	1920
AGAGTGTCTT	AACAGACGCA	GTCAAGAGTC	AAATAAAGGG	GAGTCTGGAG	TGGAATGGCT	1980
CAGGTGCTTT	TATCGTCAAT	GGTAATAAAA	CAAATCTAGA	TGCCAAGGTT	TCAAGTAAGC	2040
CCTACGCTGA	CAATAAAACA	AAGACAGTGG	GCAAGGAAAC	TGTTCCAACC	GTAGCTAATG	2100
CCCTCTTGTC	TAAGGCCACT	CGTCAGTACA	AGAATCGTAA	AGAAACTGGG	AATGGTTCAA	2160
CTTCTTGGAC	TCCTCCAGGT	TGGCATCAGG	TCAAGAATCT	AAAGGGCTCT	TATACCCATG	2220
CAGTCGATAG	AGGTCATTTG	TTAGGCTATG	CCTTAATCGG	TGGTTTGGAT	GGTTTTGATG	2280
CCTCAACAAG	CAATCCTAAA	AACATTGCTG	TTCAAGACAGC	CTGGGCAAAT	CAGGCACAAG	2340
CCGAGTATTC	GA CTGGTCAA	AACTACTATG	AAAGCAAGGT	GCGTAAAGCC	TTGGACCAAA	2400
ACAAGCGTGT	CCGTTACCGT	GTAACCCTTT	ACTACGCTTC	AAACGAGGAT	TTAGTTCCCT	2460
CAGCTTCACA	GATTGAAGCC	AAGTCTTCGG	ATGGAGAATT	GGAATTCAAT	GTTCTAGTTC	2520
CCAATGTTCA	AAAGGGACTT	CAACTGGATT	ACCGAACTGG	AGAAGTAACT	GTAAGTCACT	2580
AAAAGATACG	CCTACACTCC	TATGTCACTT	ATGGATGTAG	GAGTTCCTTT	TACTAGTTTA	2640
AGCAGGACTA	AGACAGGTAC	TAAGACAAAA	TAGCAACTTC	TAAAACTAAC	TTCCAGTTTT	2700
GGGAGAGAGA	TGGAAGTTAC	TTTGAGA				2727

(2) INFORMATION FOR SEQ ID NO: 102:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5717 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 102:

TTTTTTGTAG ATTTAAGTGG GGTGCAATTC CTAAAAAATA AAAACAATT TTTGAAAATT	60
ATGTTAGCAG GAATTGCTTC AAATTCGATT TTATCACTTA CAGGTTTACT TGTTTTATTG	120
TTCACATCGT ATAAATTGCT TGGACTCTTA TTTTTTATCA TTAACCTAGG TATGATTTTT	180
ATTAATTCAA TTCCTTTTTT TCAGTATGAT AGTGGTATTA TTTTAAGATA CTTGAATTCT	240
AACAATAATA ACTTGAATTT TCAATATATA GTTCAACTTT TAATAGCATT TGTTATTATT	300
TATTTTCCTT TGAGTCAACT ATTACAGTTT TTGACACCCA ATATTATTGT TCGTAGTATA	360
GGAGGGGTGG TTGTTTCTAT ACTGCTTTCT ATATTATATA TGATAGGAAG GACGAAATAT	420
GTTCTACGTA AATAGTTATG TTTTGTCTTA TAAAAAAGAA GGTATAATGT ATTTACGTGG	480
TCGGAGTATG CGGGAATAG CTATAGAACC TCAAATTTTCG CAAGAATTTA TCAACGATCT	540
ATTTAATAGT TGTAAGGAAC TATTAGAGAT AGAAGAAGTA TTAGGCAGTA AACTAACATT	600
TGAACTATAA ATGAACAAAT TTTAATTTTCG GATGAGATAG ATATTGATAG TAGATATTCT	660
AGAACTAAAG GTTACTATTC GTTATTTTAT AATGAAGAGT ATAATAAAAT ACAGAATAAA	720
ACAGTATTAG TATTAGGAGC AGGAGTCTTA GGATGTTATA TATCTCTAAG TCTAAGTATG	780
TATGGAGTGA GGAAACTTAT TGTCGCTGAT TACGATATAA TAGAACCATC AAATTTAAAT	840
AGGCAAATTC TTTATACAGA GTCGGATGTT GGTAAGGAGA AGATTAATGT TCTTTCTGAA	900
AAAATACACA AGTATAATTC AGATGTTTCAG GTAGTACCTA TTTCTATTAA AGTTTCTTCA	960
GTAGAAGAAT TAGAAAAAAT TGTTCGGGAA TATGGGAGTA TAGATTTTAT CGTTAAAGCA	1020
ATTGATACGC CCATTGATAT TATAAAAATT GTCAATCAAT TTGCTGTATC GCATAAGATA	1080
TCCTACATAT CAGGAGGGTT TAATGGATGC TATCTTATTA TTGATAATAT ATATATCCCT	1140
ACCATCGGTT CTTGCTTTGG TTGTCGGAAT ATAAACAAAG ATATAAATAA GTACACTTTA	1200
TCTGATAAGA CAAAGTGGCC GACTACACCA GAGATGCCTG CTATTTTGGG AGGGATAATG	1260
ACTAATTTAA TAATTAAAAT ATTTCTGGGA TGTTATAATG AAATCCTAAT AGATAACGCT	1320
TACGTTTATA ATATGAGAAA TCATGCTCTA AGTCAAGAAA AATATGTTCT GGAAAACGGA	1380
GAATGTCCAA TTTGTAAAAA AATAATAAAG TGAAAGATAA CAATATTAGA GCGAAAACAT	1440
TTATTCGTTT AGTTTGTTTT TGCTTATTAT CAGGAGGAGT AGCTTTTTTA TCTGCTATTG	1500
GGCAGTTCAC TGTTATAGAA ACACAATTAA TAGTATTGTT CTTGGGTATT ATTTTGTGCTA	1560
TATATTATGC TTACTIONAAT AAAAATATTC AAACATCATT GGAAAATATA GTATGGCTTT	1620



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TTTCATCGTT	TGAGATTTTA	TTTTTGCTTG	TTAATTTTAG	AACATTTATT	CAGTTACCAG	1680
TGGATATTTT	TATTGGTATG	ATAATATTTT	TAATGCTGTG	GATATTTATT	ATGTTAGGTA	1740
TAGTGTGTCT	TAGTTATTAT	ATAACTTTAT	TATTTAGCAA	GGAGGCTTAG	TATGTTTAAA	1800
AAAATAGGTA	TAATGAGCAT	TTGCATATAT	ATAATTATTT	TATACTGCTT	GAGAATGTAT	1860
CGTATTATCA	ATAATATTGA	AACAATCTTG	CTAACGGTTA	TATGCTTAAT	GTTATTGTTT	1920
TTTTTAAGAC	GTTTATTTGA	TAAAGATAAG	TAAATAGATG	TTAAGTAAAA	ATGTAGAATA	1980
TAAAGGAGGT	GCAATGAGTA	TGATTGAAGT	TAGCCATTTA	TCAAAAAGTT	TTGGTGATAA	2040
AATAGCTTTA	AATAATATAA	GCTTCACTGT	TAAAGAAGGT	TAGATTTTTG	GATTTTTAGA	2100
ACCATCTGGT	TCTGGAAAGA	CCACAACGAT	TAATATTCTG	ACTGGGCAGT	TCCTTGCCGA	2160
TAAAGGACAA	TCTATTATTT	TGGGACAAAA	ATCTCAAAAT	TTAACAAGCG	GTGAATTAAA	2220
GAGAATTGGA	TTGGTTAGCG	ATACAAGTGG	ATTTTATGAG	AAAATGTCTC	TGTATAACAA	2280
TCTTCTTTTT	TATAGTAAAT	TTTATAATAT	TAGTAAATCA	CGTGTTGATA	ATTTGTTAAA	2340
GCGAGTAGGA	TTATATGATA	GTCGCAAGAT	GGTAGCAGGA	AAATTATCCA	CTGGAATGAG	2400
GCAACGAATG	CTTTTAGCAC	GAGCTCTTAT	CAACAACCCC	GCTGTACTCT	TTCTGGATGA	2460
ACCGACCTCA	GGTCTAGATC	CCACAACCTC	TCGAACAATT	CATGAGTTAA	TTTTTAGAAT	2520
GAAAACAGCA	GGGACAACGA	TTTTTCTAAC	GACTCATGAT	ATGAATGAAG	CAACTCTTTT	2580
ATGTGATTAT	GTTGCCTTAT	TAAATAAAGG	GAAATTAGTT	GAGCAAGGAG	CTCCTTCTGA	2640
ACTCATTCAA	AGATATAATA	AAGATAAAAA	GATTAAGGTT	ACAGATTATA	ATGGGAATCA	2700
GATAACTTTT	GATTTTACAT	CACTAGAACA	GGTATCTCAG	ACTGATCTGG	AAAATATTTT	2760
TTCAATTCAT	TCATGTGAGC	CTACTTTAGA	AGATATTTTT	ATCACATTAA	CAGGAGGAAA	2820
GCTAAATGCT	TAAACGGTTT	CTGGCTTTGG	TATGGTTGCG	TTGTCAAATC	ATCCTTTCCA	2880
ATAAGAGTAT	TTTATTGCAA	GTTTTAGTGC	CTTTTGCTTT	CACATATTTT	TATAAATATC	2940
TTATGGAAAC	ACAGGGGAAG	GTCAACGATC	AACAGGCATT	AGTTCTTTTG	ATGATGTGTT	3000
TACCTTTTTT	TTTTTCTTTG	GCTGTTGGAA	GTCCTATAAC	TATTATCTTG	TCTGAAGAAA	3060
AAGAAAAGTA	CAATTTACAA	ACTCTTCTGT	TGAGTGGTGT	TAAAGGCTCC	GAATACATTT	3120
TATCAACTAT	GTTTCTTCCT	TTTTTGCTAA	CTTTTGTGAT	TATGGGAACT	ACTCCTCTTA	3180
TTTTAGGAGT	TACAATTGTA	CATACTTTTA	ATTATATTAC	AATCGTTCTT	CTAACCTCTT	3240
TATCCATCAT	TTTATTCTAT	TTATTGATAG	GTTTAACCGC	GAAGAGCCAA	GTAGTAGCTC	3300
AGGTTATCAG	TCTTCCTGCT	ATGATTTTAG	TTGCTTTCTT	ACCGATGCTA	TCTGGTTTGG	3360
ATAAGACAGT	TGCGAAGATA	ACAGATTATA	GTTTTATGGG	ACTATTTACT	AAGTTTTTCA	3420

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CAAAATGGGA	GGAATTTTCA	TGGAATAAAA	CTCTAATTCC	TAATCTAACA	CTACTTATTT	3480
GGATTGTTCT	TCTATTAACT	TTAATTACGA	TAAGTATTAG	GAAAAAGAAA	ATTTCTTAAT	3540
TGAGTTATTT	TAATGATTAT	AAACACAAGT	GGGAAGGAAA	AAATGAACTG	ATCTTTTGA	3600
CAGCAATTCT	ACAGAATAGT	CTTATTGCTA	TATTTTGATT	TGAGTGACG	AAAAAAGAAA	3660
AATAACAATA	GTGCTCATA	TAATGCAGA	AGTTTGGGT	GATAAGATAA	CTGATAAATT	3720
GCAATAAAAA	ATGCAACATT	TTTAAATCTC	CTCTATAAGT	GCTTCAAAAA	GTGCTTCAAA	3780
ACCTGTCTTG	TAATCCAAGT	ATTTTGGGG	ACGGTGATTA	ATAAGCTAGC	AAAGCATCAT	3840
TAAGGATTTT	TCGGTAATT	GTTGCCAAAT	CGGTTAAGA	AAATACTCAC	GAAGAAGTCC	3900
ATTCGCATTC	TCATTACTTC	CCCTTTGCCA	AGATGAATAG	GCATCCGCAA	AATAAACACG	3960
AATCCCATT	TGTTCAATTA	AAGGGTAACA	AGCAAACCTC	TTTTCTCTGT	CCGAAGTGAA	4020
AGTCTTTAAC	TATTCCTTTG	GAAAGAGTCT	TGTGAGGTGT	TCAATAGCAG	TCAACATGGA	4080
TTTAGCTGTT	TTTACTTGAC	AAGTGCTAGT	AGAAATAATA	GAATAGTAAA	AAACCTTTAA	4140
AGCAGTCCAG	AGAGGCAGCT	AAGGTTAGAC	GGTGAAAGGG	TGGAGACTAC	CCATTTTTCG	4200
TGGAACCTTG	CTGTTGGCAG	GTTCCTTTTT	TCGTGGCTTC	TGTTGGCCAG	ACTCTCTCAC	4260
TAGTAAAGGT	AAAAGGAGAA	ACCTATGCGA	GAACATCGTC	CAATCATTGC	TCTTGATTTT	4320
CCTAGTTTTG	AGGCGGTCAA	GGAATTTTTA	GCTCTTTTCC	CAGCAGAAGA	AAGCCTTTAT	4380
CTCAAGGTAG	GGATGGAGCT	TTATTACGCA	GCGGGGCCTG	AGATTGTGTC	CTACTTAAAA	4440
GGTTTGGGTC	ATAGTGTCTT	TTTGGATCTC	AAACTTCATG	ACATTCCTAA	TACAGTCAAG	4500
TCAGCCATGA	AGATCTTGTC	TCAGCTTGGT	GTCGATATGA	CTAATGTCCA	TGCGGCTGGT	4560
GGTGTAGAGA	TGATGAAGGC	GGCGCGTGAA	GGTCTTGGGA	GTCAAGCCAA	ATTGATCGCT	4620
GTAAGTCAGC	TCACATCAAC	GTCAGAAGCT	CAGATGCAGG	AGTTTCAAAA	TATCCAAACC	4680
AGTCTGCAAG	AGTCTGTGAT	TCACTATGCC	AAGAAGACAG	CTGAAGCTGG	CTTGATGGT	4740
GTTGTTTGCT	CGGCTCAGGA	AGTACAAGTC	ATCAAGCAGG	CTACCAATCC	AGATTTTATC	4800
TGTCTGACAC	CAGGGATTCT	TCCAGCTGGT	GTTGCAGTTG	GAGATCAAAA	ACGAGTCATG	4860
ACACCTGCTG	ATGCCTATCA	AATCGGCAGT	GACTATATCG	TAGTGGGACG	TCCCATTACC	4920
CAAGCTGAGG	ATCCTGTTGC	AGCTTATCAT	GCCATCAAGG	ATGAATGGAC	ACAGGACTGG	4980
AATTAAAGAA	CTAGATTAGA	AAAATAAAAG	GAGAATACCA	TGACACTTGC	TAAAGATATC	5040
GCTAGCCACC	TCTTGAAAAT	CCAAGCCGTT	TACCTCAAAC	CAGAGGAACC	CTTCACTTGG	5100
GCATCTGGTA	TCAAGTCACC	GATTTACACT	GATAATCGTG	TGACACTAGC	CTATCCAGAA	5160

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ACTCGTACCC TAATTGAAAA TGGTTTTGTG GAAGCTATCA AAGAAGCCTT TCCTGAAGTA	5220
GAAGTGATTG CAGGAACTGC AACAGCAGGG ATTCCACACG GAGCCATTAT TGCTGATAAG	5280
ATGGACTTGC CTTTTGCCTA CATCCGTAGT AAACCAAAAG ACCACGGAGC TGGTAATCAA	5340
ATCGAAGGTC GCGTAGCTCA AGGTCAAAAA ATGGTAGTGG TTGAAGACCT TATTTCAACG	5400
GGTGGTTCAG TTCTTGAAGC TGTAGCAGCA GCCAAGCGAG AAGGAGCAGA TGTACTTGGA	5460
GTTGTAGCGA TTTTCAGCTA CCAATTGCCA AAAGCAGATA AGAACTTTGC AGATGCTGGT	5520
GTAAACTTG TGACGCTTTC AACTATAGC GAGCTTATCC ATCTAGCCCA AGAAGAAGGT	5580
TACATCACGC CAGAGGGCCT TGATCTTCTA AAACGCTTTA AAGAAGACCA AGAAAATTGG	5640
CAAGAAGGTT AGGTCAGTAA GATAAAGAGA GACGAGGCTA CCGAGTCTCT TTTACCATTT	5700
TATTTAAAAT ATGACAG	5717

## (2) INFORMATION FOR SEQ ID NO: 103:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5558 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 103:

CCTGGACTTT CTAAATGAA ATCTTGCGAC CTGGATCAAG CCCTTCATGA GCATTTTTC	60
GAAGAAGAAT TAGCTGGTCA CTTTCATGTC CTTCTATGGA CTTTTTTTAC AATGGCATTG	120
CTATCACACC CAATACCTAT CTAAGCGCCT GGTTCGTAAA CTTTATTGCA GCTCTTCCTC	180
TAAATTTCTT AATTGTTGAA CCAATTGCCC GTTTTATACT AAGTTCTTTT CAGAAACCAT	240
TTACTGGGGA AGAAGTTGAA GATTTTCAAG ATGATGATGA AATCCCAACT ATTATCTAAG	300
CCAGTTCTGT AACTACTAA TATTTGAAAT CCACTTCCTT TTAGGGTGCA ATGGTTATAA	360
ATGAATTTTT GAGAGGATCA GAATGAAAAA ACTAGCAACC CTTCTTTTAC TGTCTACTGT	420
AGCCCTAGCT GGGTGTAGCA GCGTCCAACG CAGTCTGCGT GGTGATGATT ATGTTGATTC	480
CAGTCTTGCT GCTGAAGAAA GTTCCAAAGT AGCTGCCCAA TCTGCCAAGG AGTTAAACGA	540
TGCTTTAACA AACGAAAACG CCAATTTCCC ACAACTATCT AAGGAAGTTG CTGAAGATGA	600
AGCCGAAGTG ATTTTCCACA CAAGCCAAGG TGATATTCGC ATTAACTCT TCCCTAAACT	660
CGCTCCTCTA GCGGTTGAAA ATTTCTCTAC TCACGCCAAA GAAGGCTACT ATAACGGTAT	720
TACCTTCCAC CGTGTCATCG ATGGCTTTAT GGTCCAAACT GGAGATCCAA AAGGGGACGG	780
TACAGGTGGT CAGTCCATCT GGCATGACAA GGATAAGACT AAAGACAAAG GAACTGGTTT	840

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CAAGAACGAG	ATTACTCCTT	ATTTGTATAA	CATCCGTGGT	GCTCTTGCTA	TGGCTAATAC	900
TGGTCAACCA	AACACCAATG	GCAGCCAGTT	CTTCATCAAC	CAAAACTCTA	CAGATACCTC	960
TTCTAAACTC	CCTACAAGCA	AGTATCCACA	GAAAATTATT	GAAGCCTACA	AAGAAGGTGG	1020
AAACCCTAGT	CTAGATGGCA	AACACCCAGT	CTTTGGTCAA	GTGATTGACG	GTATGGATGT	1080
TGTGGATAAG	ATTGCTAAGG	CCGAAAAAGA	TGAAAAAGAC	AAGCCAACTA	CTGCTATCAC	1140
AATCGACAGC	ATCGAAGTGG	TGAAAGACTA	CGATTTTAAA	TCTTAAAAAC	CAAAAAAATA	1200
CAGTATCCAC	ATTCCGTACT	GTATTTCTTT	TACTCTCATT	CTTAAGTTAA	ATTATTAAAA	1260
TCCCATATTT	GGTCTATCCA	GCCTTCATAA	AAGTCTGGCT	CGTGGCAGAC	CATAAGGATA	1320
GATCCCCTAT	ATTCTTTGAG	AGCGCGTTTG	AGCTCATCCT	TTGCATCCAC	ATCCAAATGG	1380
TTGGTCGGCT	CGTCCAGCAC	TAAAACGTTG	TTTTCACGAT	TCATCAAGAG	ACAGAAACGA	1440
ACCTTGCTT	GCTCTCCCCC	TGATAATACT	TGAATCTGGC	TTTCAATATG	TTTGGTTGTC	1500
AAACCACAAC	GGGCAAGGGC	TGCACGGACT	TCTGCTTGAT	TAAGGGCAGG	AAAGGCATTC	1560
CAGACAGCTT	CAAGAGGAGT	TTGGCGATTA	CCGCCTTCTA	CTTCCTGCTC	AAAATAACCA	1620
AGTTCTAAAT	AATCTCCACG	CTCCACTTCC	CCAGCGATTG	GCGAGATAAT	GCCCAAGAGA	1680
CTCTTCAAGA	GAGTTGTTTT	TCCAATACCA	TTAGCACCAA	TAATCGCAAC	CTTTTGATTG	1740
CGTTCGAAGG	TAAGATTTAA	AGGCTTAGTA	AGAGGACGGT	CGTAACCAAT	TTGCAAGTTC	1800
TTGGCTTGGA	AGATAAAGCG	CCCTGGTGTA	CGAGCTGGTT	TGAAATCAAA	GGATGGTTTT	1860
GGTTTCTCAC	TTTGGAGTTC	GATAATATCC	ATCTTATCCA	ATTTCTTTTG	ACGAGACATA	1920
GCCATATTAC	GAGTTGCAAC	ACGGGCTTTA	TTACGAGCCA	CAAAGTCCTT	GAGGTCTGCA	1980
ATCTCTTTCT	GCTGGCGTTC	GTAGGCTGCC	TCTAGCTGAG	ATTTCTTCAT	AGCATAAACT	2040
TCTTGGAACT	GGTAGTAGTC	ACCAGAGTAA	CGCGTCAGCT	GTTGATTTTC	CACATGATAG	2100
ACAATATTAA	TAACGTCATT	GAGGAATGGA	ATATCGTGCG	AAATGAGAAC	AAAGGCATTC	2160
TCATAGTTTT	GGAGATAGCG	CTTGAGCCAA	TCAATATGCT	CAGCATCCAA	GTAGTTGGTC	2220
GGCTCGTCCA	ACAGCAAGAT	ATCAGGCTTT	TCAAGGAGAA	GTTTTGCCAA	AAGCACCTTG	2280
GTTCTTTGCC	CACCTGACAA	AGAAGTTACA	TCCGTATCCA	TGCCAAAGTC	CATAACACCA	2340
AGAGCACGCG	CTACTTCGTC	AATCTTAGCA	TCCAAGGTAT	AGAAATCACG	ACTCTCCAGA	2400
CGGTCTTGAA	GTTCTCCTAC	TTCTTCCATG	AGAGCATCAA	CATCCGCGCC	GTCTTCAGCC	2460
ATTTTCATAT	AGAGGTCATT	GATACGAGCT	TCAGCTTTGA	AAAGCTCATC	AAAAGCCGTA	2520
CGGAGAACAT	CACGCACCGA	CTGTCTTTCA	GCAAGGACAG	AGTGCTGATC	CAAGTAACCA	2580



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GCCGTCACAT	ATTTGGACCA	CTCAACCTTT	CCTTCATCTG	GCAGCATTTT	ACCAGTCACG	2640
ATACTCATAA	AGGTTGATTT	TCCTTCACCA	TTGGCACCGA	CCAGGCCGAT	ATGTTCTCCC	2700
TTGAGGAGAC	GGAAGGACAC	ATCTTCAAAA	ATTGCACGGT	CACCAAAACC	GTGACTCAGA	2760
TTTTTAACTT	CTAAAATACT	CATTTTAATT	CCTTACCTTG	TTTTTATGTA	ATCGTTTATA	2820
AAGGAGCCAA	GCCAGATAGC	CACCCAAAGT	GTTGGTCCAC	AAATCATCAA	TCTCAAAGAC	2880
GCGATTGAAA	TCAAAGAAAA	AGTCCAAGAT	TAATTGCGTA	CACTCGATTG	CAAGACTCAC	2940
AAGAAACTA	AAAAGAAGGA	CCTTTTTTGT	TTTCCGCAAA	TTTGGAATA	GATAAAGGAG	3000
TTGGAAAATC	AGAGGAAAAA	ACAAGAAGAC	ATTGAGGATA	TTTTGTAAAA	AAATCCAACA	3060
TAATTGTCCA	ATGTCACTCA	CTTCGCCCAG	TTTCCAGAGA	GAATTGAAAG	GAGTCAAAAG	3120
AAAAACCAGG	CGTCCAAGAT	GCTGAATACC	TGGAGTTCCC	ACTCCCACGG	TAGATTGTTC	3180
TTGAGGAGTA	AAGCAAAAAC	AGACAATGCA	AATGCTATAG	AAAATGACTC	CCCAGACCAA	3240
AATATGATTA	TAAGTCTTCT	TCATCATTAA	GGATTTACCG	CTGCGACTGC	CTTCTGGCGG	3300
TCACGTTTCA	TTGTGTTAGA	GCGCAATTGT	CCACAAGCTG	CGTCAATATC	TGTACCATGC	3360
TCTTGACGAA	CCACACAGTT	GACCCCTTTT	TTCTTAAGCG	TATCATAGAA	AGCCAACACG	3420
CACTCTTTGG	GACTACGGCT	ATATTGGTCA	TGCTCACTAA	CTGGGTTATA	AGGAATCAAG	3480
TTTACATAAG	ACAATTTCTT	GATGTTCTTG	AGCAATTCAG	TCAATTCCAA	GGCTTGTTCT	3540
ACACCGTCGT	TGACTTCATT	AAGCATGATA	TATTCAAAGG	TTACACGACG	GTTTGTTGTC	3600
TCAATGTAGT	ATTCAATAGC	AGCAAAGAGT	TTTTCAATCG	GAAAGGCACG	GTTAATCTTC	3660
ATGATACTTG	AACGAAGTTC	ATTGTTAGGT	GCGTGAAGAG	ACACGGCAAG	ATTGACCTGA	3720
ACCCCTTCAT	CAGCAAAGTC	ACGAATTTTA	TGAGCCAAAC	CTGAGGTTGA	AACCGTGATG	3780
TGACGAGCAC	CGATAGCCAT	TCCTTTATCA	TCATTGATAG	TACGAAAGAA	ATTCAAGACA	3840
TTGTTGTAAT	TATCAAAGGG	CTCACCGATT	CCCATGACAA	CGATATGGCT	GATGCGTTCA	3900
TCCTGACCAC	GCTCATCAAA	GTATTTCTGA	ACCAGCATGA	TTTGCCTAC	GATTTACCG	3960
TTATTGAGGT	CACGTTGCTT	CTTAATCAAA	CCAGAGGCAC	AGAAGGTACA	ACCGATATTA	4020
CAGCCGACCT	GAGTGGTCAC	ACAGACAGAT	AAACCATAGT	GTTGACGCAT	GAGTACAGTC	4080
TCAATTAACA	TACCGTCGGG	CAATTCAAAG	AGATATTTGA	CTGTACCATC	AGCAGACTCT	4140
TGCACAATAC	GTTGTTTCAA	GGGATTGACC	ACAACTGGT	CATTGAGCTT	AGCAATCAAA	4200
TCCTTGGAAG	GGTTGGTCAT	TTCTTCAAAT	GACTGCACAC	GTTTACGGTA	GAGCCATTCC	4260
CAGATTTGAT	CTGCACGGAA	TTTCTTTTCT	CCCTGCTCCA	ATACCCATTC	CTGCATGGTT	4320
TGATGTACCA	AACTATGAAT	TGAGGGTTTC	ATTTCTTCTC	CTTATTCTCT	ACTCACTTCT	4380

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GACGAATGAC AAAATGACGT TGTCCCTTGT CGTCTTTCTG ACGACGTCTA TTTTCTTAT	4440
CTGCATTCTGA CTTTCGTTTA GTTTGAGTCG GTTTCCTTCC TTTTCTAGAA GGTGTTTCTT	4500
CTTCCGTCTT ACGCATTTTC TTGTCAAATG ATGCTCGCTT AGGGGCTTCA TTTTCTAAGA	4560
CAAAATAGGC ACAACCATAA CTACAATACT CTAAAAGGTA GTCTTGTAAG CGACTGATTT	4620
TTTCAAGTTT TTCTTCTGTT CGGTCATCCT TGTAAGAAACC TCGTAGGCGA AGCTGTTCGT	4680
TGCTCCAGTC CCCCACGATA TAATCAAACCT TGGTTAATAC TTCTGAAAAA CGCTGATTAA	4740
AAGTCGTCAC ATCAAAGGCA TCCTTGATAT TTTCAACCAA GGAAAAAGCT ATCCCTTCCG	4800
TTTCGACCTT GTCCCCGTGT AAATGGAACCT CCGGACCAGG AAACCTTGTTA TAGTTGTATA	4860
ATTCAGGTGC AATTTCTTTT CGCATAGATA TCCTTTTTTC ACGATTACTT AATACTTTAT	4920
TCTACCATAA TTTCTAGCAG TTAGCACGTT TCTCATAAAA ATGAAAAAAG TCTGACGATT	4980
TTGTCAGACC AGAATCTTAT AACCTAAAAA GAGAAGAACA ATTCTTCCCT CCAACTATCA	5040
TTATTTAGCA GCTGCGTACA ATTCATCTAC TTTATTCCAG TTGATTACTG AAAAGAAAGC	5100
TTTGATGTAG TCAGGACGCA CGTTGCGGTA TTTCACGTAG TAAGCATGTT CCCAACGTC	5160
CAAGCCCAAG ATTGGTTTTT TACCTTCTGA GATTGGTGTG TCTTGGTTTG CTGTTGAAGT	5220
CACTTCAAGT TTCCCTTCTT TGTGACAAC CAACCATGCC CAACCTGAAC CAAAACGAGT	5280
TGTTGCTGCT GCAGTGAAGG CTGCTTGGA TTCTTCAAAT GAACCAAATG TTGCATCGAT	5340
TGCTGCTGCC AGTCTGCTG AAGGAGCTGT TTTCTCGGGA GTCATCAATT CCCAGAAAAG	5400
AGCGTGTTTC AAGTGTCGC CACCATGTGT GATAAGTGCT TGACGGATAT CAGCTGGGAT	5460
AGATTCTACA TCAGCAAGCA AGGCTTCAAG GTCTTCACCG ATTTCAAGGT GTTTTCTAA	5520
AGCTGCATTG GCATTGTTGA CATAAGTTTG ATGGTGTT	5558

(2) INFORMATION FOR SEQ ID NO: 104:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6735 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 104:

GGAATTGTAA ATATCATATT GTTTTTGCAC CCAAATATCG TCGTCAAATC ATTTATGGCA	60
GATACAAAGC TAGTATCGGA AGAATCATAC GTGACTTATG TGAGCGTAAG GGTGTAATAA	120
TCCATGAAGC GAATGCTTGT TCAGACCATA TTCACATGCT TATCAGTATT CCTCCGAAAC	180

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TTAGTGTTTC	GTCCTTTATG	GGCTATTTAA	AGGGCAAGAG	CAGTTTGATG	ATTTTTGATA	240
AGCATGCGAA	TTTAAAATAC	AAATATGGCA	ATCGCAAGTT	TTGGTGTAGA	GGCTATTATG	300
TAGATACGGT	AGGCCGTAAT	CAGAAAGTGA	TAGCTGAATA	TATTCAGAAT	CAATTACAAG	360
AAGACAGAGT	AGCAGACCAG	CTCACGTTAT	TCGAGTCAGT	AGATCCGTTT	ACTGGCGAAA	420
TAAATAAGAG	GAAGTAACTA	AGGTGCTTTA	GCACCTGCTC	GGGAAAGTGG	TGCGCGAGGA	480
AGCTATTTTCG	GTGGGCCTTT	GGCCCTGGCC	GGTAGAAGCG	GCTTATAGCC	GCAGAACAAA	540
CCACCAGTTC	AACTGGTGG	TTTTGATTTA	AAAACTTGA	TACATAAAAA	TAAAAGTCTA	600
TATAAAGGAT	GGTAAAATTC	CTGTTGTCCG	ATTTGGACAA	TATCCTAAAT	AGTTACAATA	660
TATGGTCTAT	ACTTTTTCTT	AGGAGAAAGC	TAGATGTACA	GACGTTTGAG	AGATTTGAGG	720
GAGGATCATG	ATCTGCCCCA	AAAGCAAATA	GCTACAATAC	TTTCGTTTAC	AAATTCAGCT	780
TATGCCAAAA	TTGAACGGGG	TGAGCATGCG	TTGACGGCTG	ATGTATTGGT	TAAACTCTCA	840
GATTTCTATG	ACGTCAGTAC	AGACTATTTA	TTGGGATTAA	CTGATTTTCC	TGATAAAATT	900
CGCTTTAGAA	AATAATCTCC	TCAATTTTAT	AGAGTTTGAA	AATGAGTGAG	ATTTTTTATT	960
TGCCCTTTGA	CAACTGAATA	GCCTAAAATG	GTACTTTCCT	CATTTGTGGA	GCAAATTTGA	1020
ATGGCTCGCC	ATGATAAGAG	CGATTTTAAA	ATCATCAATA	AAATAGAGCG	ATACTTTATA	1080
TGCCATGATA	CAAATGATAT	ACAATGATAC	TTCTGACCGT	TCAGCCTGCC	AACGTAAAAG	1140
AGCAGCAAGT	GAAATTCTTA	TGATGACTTC	ATCAGTCATG	CCACGTTGAA	TGTGTGAGTT	1200
TGTTAGATAA	ACGCAATTAA	TCCTCAAAAG	GTTCCCCGAA	CCTTTTGAGT	TCTACAGACG	1260
CATCACGTGG	AGTGTGTAAG	CTTGTTGCTA	AAAGCGTAAA	AACCTTGGA	CGAAAGGAAT	1320
AATAGACTTT	CTGCGAAACA	AAAATATAAT	ACAATAAAAC	TATGAATGAT	GAAGCAAGTA	1380
AACAATTGAG	CGATAGCCGT	TTCAAGATCC	TTGTAGGTGT	TCAGCGCACG	ACTTTTGAAG	1440
AGATGTTAGC	TGTGTTAAAA	ACAGCTTATC	AACGTAAACG	CGCAAAGGT	GGACGAAAAA	1500
GCAAATTAAG	CCTAGACGAT	CTCCTTATGG	TAACATTCA	ATACATGCGA	GAATAGAGCA	1560
CTTATGAACA	AATTGCGGCT	GATTTTGGCA	TTCACGAAAG	CAACTTAATC	CGTCGGAGTC	1620
AATGGGTGTA	AGCAACTCTT	ATTCAAAATG	GTTTTACGAT	TTCAAATTCT	GCCTTAATTC	1680
TGTAAAAACA	GTAAAATTCG	AAGGATTGTA	AGGTAAGAGT	TTTTTCTTTT	CTGAAAAAAT	1740
GGTATAATAG	CAATCAAAAC	TAGAAAATAA	AACGGAATTT	GGAACAGATT	TGTCTGTATC	1800
CTAGTAGAGT	GGTGATACTA	TGAAGATTAG	TAAGAGGCAC	TTATTAAATT	ATTCCATCTT	1860
GATTCCTTAC	TTGCTTTTAT	CTATTTTGGG	CTTGATTGTG	GTCTATTCTG	CCACCAGTGC	1920
TATTTTAATT	GAAGAAGGCA	AGAGCGCCTT	GCAAGTGGTT	CGAAACCAAG	GAATCTTTTG	1980



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GATTGTTAGT TTGATACTGA TTGCCTTAAT TTATAAATTG AGACTAGATT TTTTGAGAAA	2040
TGAGCGACTA ATCATTTTAG TTATATTAAT AGAAATGCTT TTATTGTTCT TGGCTCGTTT	2100
TATTGGTATT TCCGTAAACG GGGCATAACG TTGGATTTCG GTTGCAGGAA TAACTATTCA	2160
GCCAGCTGAG TACTTAAAA TCATTATTAT TTGGTATTTA GCTCACCGAT TCTCCAAACA	2220
GCAAGAAGAA ATAGCTACTT ATGATTTTCA AGTTTGTACT CAAAATCAAT GGCTTCCCCG	2280
TGCTTTTAAT GATTGGCGAT TCGTTCCTCT AGTTCTGATT GGAAGTTTGG GAATTTTCCC	2340
TGATTTAGGA AATGCGACTA TTTTAGTCTT GGTTCCTTG ATTATGTATA CAGTTAGTGG	2400
AATCGCTTAT CGCTGGTTTT CAACCATTCT GCGCTCGTA TCTGCCGCTT CTGTCTTTGT	2460
CTTGACCACT ATCAGCCTAA TCGGTGTTGA GACCTTTTCA AAAATTCAG TATTCGGCTA	2520
TGTAGCCAAG CGCTTTAGTG CCTTTTTTAA TCCTTTTGCC GATCGTGCTG ATGCAGGTCA	2580
CCAGTTAGCT AATTCTTATT TTGCCATGGT CAATGGCGGT TGGTTTGGTC TAGGTCTTGG	2640
AAACTCGATT GAAAAACGAG GTTATTTGCC AGAAGCTCAT ACAGACTTTG TCTTTTCTAT	2700
CGTGATTGAA GAATTTGGCT TTGTTGGTGC CAGTCTTATT TTAGCTCTCT TGTTTTTCAT	2760
GATTTTGCGG ATTATCTTGG TCGGTATCCG AGCGGAGAAT CCTTTCATG CCATGGTTGC	2820
ACTCGGTGTC GGAGGGATGA TGTGTTTCA GGTATTTGTC AATATCGGAG GGATTCGGG	2880
CTTGATTCCA TCTACAGGAG TGACTTTCCC CTCTTATCC CAGGGTGGA ATAGTCTTCT	2940
AGTCTTATCA GTGGCAGTAG CCTTTGTCTT AAATATTGAT GCCAGTGAAA AACGCGCTAA	3000
ATTGTACCGA GAATTGGAAT ATCAACCAAT GAACCTTCTG TTGAAGTAGG ATAAAGAAAG	3060
GATAGTTTAT GTCTCTTCAA AAATTAGAAA ATTATAGTAA TAAAAGTGTT GTGCAAGAAG	3120
AAGTCTTGAT TCTAACAGAA TTAAGTGAAG ATATTACTAA AAATATGCTT GCGCCAGAGA	3180
CCTTTGAAAA AATAATACAG TTGAAAGAAT TATCAACGCA GGAAGATTAT CAAGGTCTAA	3240
ACCGTCTAGT GACTAGCTTA TCAAATGATG AAATGGTCTA TATTTACGCG TATTTCTCTA	3300
TCTTGCCTCT TTTGATTAAT ATTTTCAGAGG ATGTGGATTT AGCTTATGAA ATCAATCATC	3360
AAAATAATAT TGATCAGGAC TATTTAGGTA AATTATCTAC AACGATTAAA TTGGTAGCAG	3420
AAAAGGAAAA TGCCGTTGAG ATCCTAGAAC ACTTGAATGT TGTCCCTGTT TTGACAGCCC	3480
ATCCAACACA AGTGCAACGC AAAAGTATGT TGGATTTAAC AAATCATATT CATAGTCTTT	3540
TGCGTAAATA CCGTGATGTT AAGTTGGGGT TGATCAATAA AGATAAATGG TACAATGATT	3600
TGCGTCGTTA CATCGAAATT ATCATGCAGA CAGACATGAT TCGTGAGAAA AAATTAAAAG	3660
TGACTAACGA AATCACGAAT GCTATGGAAT ATTATAACAG CTCCTTTTGT AAAGCTGTAC	3720

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CTCATTTGAC	GACGGAGTAT	AAGCGCTTAG	CGCAAGCGCA	TGGTCTGAAT	TTAAAACAGG	3780
CTAAACCAAT	CACCATGGGT	ATGTGGATAG	GTGGTGACCG	TGATGGAAAT	CCATTTGTTA	3840
CAGCAAAGAC	CTTGAAGCAG	TCTGCACTCA	CTCAGTGTGA	AGTCATCATG	AACTACTATG	3900
ATAAAAAGAT	TTACCAACTT	TATCGTGAAT	TTTCTCTTTC	AACTAGCATT	GTCAACGTCA	3960
GCAAGCAAGT	CAGAGAAATG	GCTCGTCAAT	CCAAGGATAA	CTCGATTTAC	CGCGAAAAAG	4020
AGCTTTACCG	TCGTGCCTTG	TTTGATATTC	AATCAAAAAT	TCAGGCAACT	AAAACCTATC	4080
TGATTGAGGA	TGAAGAAGTT	GGGACTCGTT	ATGAAACCGC	CAATGATTTC	TACAAGGATT	4140
TGATTGCCAT	TCGAGATTCT	CTACTAGAAA	ATAAGGGCGA	GTCCTTGATT	TCAGGTGATT	4200
TTGTGGAATT	ATTGCAGGCA	GTAGAGATAT	TTGGTTTTTA	CTTAGCATCA	ATTGATATGC	4260
GACAAGACTC	TAGCGTCTAT	GAAGCCTGTG	TGGCAGAACT	CTTGAAATCA	GCAGGAATTC	4320
ATTCTCGTTA	TAGCGAGTTG	AGCGAAGAAG	AAAAGTGTGA	CCTTCTCTTG	AAAGAATTAG	4380
AAGAAGATCC	CCGAATTCTT	TCTGCGACTC	ACGCAGAAAA	ATCAGAATTA	TTAGCAAAAG	4440
AATTAGCTAT	TTTTAAGACG	GCTCGTGTTT	TGAAAGATAA	GTTGGGAGAT	GATGTCATCC	4500
GTCAGACCAT	CATTTACAT	GCAACCAGCC	TTTCTGATAT	GCTAGAATTA	GCTATTCTGT	4560
TAAAAGAAGT	AGGACTGGTG	GATACGGAAA	GGGCGCGTGT	TCAGATTGTT	CCCCTTTTTG	4620
AAACAATTGA	AGACTTGGAT	CATTCAGAGG	AAACAATGAG	AAAATATCTT	TCTCTTAGCC	4680
TTGCCAAAAA	ATGGATTGAC	TCACGAAATA	ACTACCAAGA	AATCATGCTT	GGCTACTCTG	4740
ACAGTAATAA	AGATGGCGGT	TACTTGTCAT	CATGTTGGAC	CCTCTACAAG	GCTCAACAAC	4800
AATTGACTGC	TATTGGAGAT	GAATTTGGCG	TTAAGGTAC	CTTCTTCCAT	GGTCGTGGTG	4860
GTA CTGTCGG	TCGTGGTGGT	GGGCCAACCT	ATGAAGCCAT	TACATCTCAA	CCGCTCAAGT	4920
CTATCAAGGA	TCGTATCCGC	TTGACGGAGC	AGGGTGAAGT	AATTGGGAAT	AAATACGGTA	4980
ACAAAGACGC	CGCTTACTAT	AACCTTGAAA	TGCTAGTATC	GGCAGCTATT	AACCGTATGA	5040
TTACTCAGAA	GAAGAGCGAT	ACCAATACCC	CAAATCGTTA	TGAAACCATT	ATGGATCAAG	5100
TAGTGGACCG	TAGTTACGAT	ATCTACCGTG	ATTTGGTCTT	TGGTAATGAG	CATTTCTATG	5160
ATTATTTCTT	CGAGTCAAGT	CCAATCAAGG	CTATTTCAAG	TTTTAATATT	GGTTCTCGTC	5220
CAGCCGCTCG	TAAGACTATT	ACTGAAATCG	GTGGTTTGCG	TGCCATCCCT	TGGGTATTCT	5280
CATGGTCACA	GAGTCGTGTT	ATGTTCCCTG	GATGGTACGG	GGTTGGTTCA	AGCTTCAAGG	5340
AATTTATCAA	TAAAAATCCA	GAGAATATTG	CTATCTTACG	AGATATGTAC	CAAAATTGGC	5400
CTTTCTTCCA	ATCGCTTCTT	TCAAATGTTG	ATATGGTTTT	GTCAAAATCA	AATATGAATA	5460
TTGCTTTTGA	ATATGCTAAA	CTTTGTGAAG	ACGAGCAAGT	TAAGGCCATC	TATGAGACTA	5520

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TTTTAAATGA ATGGCAAGTT ACTAAGAACG TTATCTTGGC TATTGAAGGA CATGACGAAC	5580
TCTTAGCTGA CAATCCATAT CTAAAAGCTA GTCTGGATTA CCGTATGCCT TACTTTAATA	5640
TTCTCAACTA TATTCAGTTG GAGTTGATTA AACGCCAACG TCGTGGAGAA TTGTCCAGTG	5700
ATCAAGAACG ATTGATTCAT ATCACCATCA ACGGAATTGC GACAGGATTG CGTAATTCAG	5760
GTTGATAATT TTCAAGAGTG AATGCTAAAA GTGAATATCA AAAAAATTCT AATAGACTAT	5820
TGACAAGTAG TTTAAAAATG ATATAATTTA ACCATTCAGA AAAGTAATCA TACAAACTTT	5880
TTAGAGAGTC TGTGGTAGCT GAAAACAGAT AAGTGGCAAT GATGAAAATT GGGCTGAATG	5940
CTATTTAGAA TTTGAAATTA TAAAAATTCG GTAAGCACAC CTTACAGTGC ATCTCGTTAT	6000
TGCGAGACTG AGCGATAGGG AAATTCCCTA TAATTGAGGT GGTACCGCGC ATCGACGTCC	6060
TCACACAAGT TTTTGTGTG AGGATTTTTT TGATGGAGGT TAGTATGGAA AGAAAACGAT	6120
GGCGTCGCTT GTTTAGATAA GTGAAATATG TTAAAGGAAA TAAAAAGGAG AAACAGAATG	6180
AAAAATAAAC GTTTAATTGG AATTATTGCT GCATTAGCAG TCTTAGTAGC AGGAAGCTTG	6240
ATTTATTCTT CAATGAATAA ATCAGAAGCT CAGAATAATA AGGATGAGAA GAAAATAACC	6300
AAGATTGGTG TGCTTCAATT TGTGAGCCAT CCATCCCTTG ATTTGATTTA TAAAGGGATC	6360
CAAGATGGAC TTGCAGAAGA AGGATATAAA GATGATCAAG TTAAAATTGA TTTTATGAAC	6420
TCAGAAGGTG ACCAAAGTAA GGTGCGACA ATGAGTAAAC AATTGGTTGC AAATGGGAAT	6480
GACCTTGTGG TTGGTATCGC AACACCAGCA GCCCAAGGGT TGGCTAGTGC AACAAAAGAC	6540
CTACCGGTTA TCATGGCCGC TATTACAGAC CCAATTGGTG CTAACCTGGT TAAAGATTG	6600
AAAAAACCAG GTGGCAACGT TACAGGGGTA TCTGACCACA ATCCAGCTCA ACAACAAGTT	6660
GAATCATCA AGGCTCTGAC ACCGAATGTG AAAACAATCG GAGCTCTTTA CTCAAGTAGC	6720
GAAGACAATT CAAAA	6735

## (2) INFORMATION FOR SEQ ID NO: 105:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6516 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 105:

CTAGAGGATC CCAGCAGGTA AATTGGCTTC AGCTGGCAAA AAAGTTGCCC TCGTTGAACG	60
CAGCAAGGCT ATGTACGGTG GAACTTGTAT CAACATTGGT TGTATCCCAA CTAAAACCTT	120



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GCTAGTTGCT	GCTGAAAAGG	ACTTGTCTTT	TGAAGAAGTC	ATTGCTACTA	AAAACACGAT	180
CACTGGTCGC	CTCAACGGTA	AAAACATATGC	GACTGTTGCT	GGTACAGGCG	TAGATATCTT	240
TGATGCGGAA	GCTCACTTCC	TTTCAAATAA	AGTCATCGAA	ATCCAAGCTG	GTGATGAAAA	300
GAAAGAACTG	ACTGCTGAAA	CAATCGTCAT	CAACACTGGT	GCTGTTTCAA	ACGTCTTGCC	360
AATCCCTGGA	CTTGCTACAA	GCAAAAACAT	CTTTGACTCA	ACAGGTATCC	AAAGCTTGGA	420
CAAATTACCT	GAAAAACTTG	GAATCCTTGG	TGGCGGAAAT	ATCGGTCTTG	AATTTGCCGG	480
CCTTTACAAC	AAACTTGGA	GCAAGGTCAC	AGTCCTAGAT	GCCTTGATA	CATTCCTACC	540
TCGTGCAGAA	CCTTCCATCG	CAGCTCTTGC	TAAACAATAC	ATGGAAGAAG	ATGGCATTGA	600
ATTGCTTCAA	AATATCCATA	CTACTGAAAT	CAAAAACGAT	GGTGACCAAG	TGCTTGTCGT	660
AACTGAAGAC	GAAACTTACC	GTTTCGACGC	CCTTCTCTAC	GCAACTGGAC	GCAAACCAAA	720
TGTAGAACCA	CTTCAACTTG	AAAATACAGA	TATTGAACTA	ACTGAACGTG	GTGCTATTAA	780
AGTAGACAAA	CACTGTCAAA	CAAACGTTCC	TGGTGTCTTT	GCAGTTGGAG	ATGTCAACGG	840
TGGCCTTCAA	TTTACTTACA	TTTCACTTGA	TGACTTCCGT	GTTGTTTACA	GCTACCTTGC	900
TGGAGATGGC	AGCTATACAC	TTGAAGACCG	TCTCAATGTG	CCAAATACTA	TGTTCATCAC	960
ACCTGCACTT	TCACAAGTTG	GTTTGACTGA	AAGCCAAGCA	GCTGATTTGA	AACTTCCATA	1020
CGCTGTTAAG	GAAATCCCCG	TTGCAGCAAT	GCCTCGTGGT	CACGTAAATG	GAGACCTTCG	1080
CGGTGCCTTC	AAAGCTGTTG	TCAATACTGA	AACAAAAGAA	ATTCTTGGAG	CAAGCATCTT	1140
CTCAGAAGGT	TCTCAAGAAA	TCATCAACAT	CATCACTGTT	GCTATGGACA	ACAAGATTCC	1200
TTACACTTAC	TTCACAAAAC	AAATCTTCAC	TCACCCAACC	TTGGCTGAGA	ACTTGAATGA	1260
CTTGTTTGCG	ATTTAAGTTG	AGATTTAATC	GTATCGAACA	GCCCTCTTTG	GGCTGTTTTT	1320
ACTTCTGCGG	AATCTCAAAT	CTGTCTTTCT	CCTCTTTTAT	GATATAATAG	AAACATGAAC	1380
TTAAAACTA	CTTTGGGCCT	TCTTGCTGGG	CGTTCTTCCC	ACTTCGTTTT	AAGCCGTCTT	1440
GGACGTGGAA	GTACGCTCCC	AGGGAAAGTC	GCCCTTCAAT	TTGATAAAGA	TATTTTACAA	1500
AACCTAGCTA	AGAACTACGA	GATTGTCGTT	GTCACTGGAA	CAAATGGAAA	AACCCTGACA	1560
ACTGCCCTCA	CTGTCGGCAT	TTTAAAAGAG	GTTTATGGTC	AAGTTCTAAC	CAACCCAAGC	1620
GGTGCCAACA	TGATTACAGG	GATTGCAACA	ACCTTCCTAA	CAGCCAAATC	TTCTAAAACT	1680
GGGAAAAATA	TTGCCGTCCT	CGAAATTGAC	GAAGCCAGTC	TATCTCGTAT	CTGTGACTAT	1740
ATCCAGCCTA	GTCTTTTGT	CATTACTAAT	ATCTTCCGTG	ACCAGATGGA	CCGTTTCGGT	1800
GAAATCTATA	CTACCTATAA	CATGATATTG	GATGCCATTC	GGAAAGTTCC	AACTGCTACT	1860
GTTCTCCTTA	ACGGAGACAG	TCCACTTTTC	TACAAGCCAA	CTATTCCAAA	CCCTATAGAG	1920

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TATTTTGGTT	TTGACTTGGA	AAAGGGACCA	GCCCAACTGG	CTCACTACAA	TACCGAAGGG	1980
ATTCTCTGTC	CTGACTGCCA	AGGCATCCTC	AAATATGAGC	ATAATACCTA	TGCAAACTTG	2040
GGTGCCTATA	TCTGTGAAGG	TTGTGGATGT	AAACGTCCTG	ATCTCGACTA	TCGTTTGACA	2100
AAACTGGTTG	AGTTGACCAA	CAATCGCTCT	CGCTTTGTCA	TAGACGGCCA	AGAATACGGT	2160
ATCCAAATCG	GCGGGCTCTA	TAATATCTAT	AACGCCCTAG	CTGCTGTGGC	CATCGCCCGT	2220
TTCCTAGGTG	CCGATTCGCA	ACTCATCAAA	CAGGGATTTG	ACAAGAGCCG	TGCTGTCTTT	2280
GGACGCCAAG	AAACCTTTCA	TATCGGTGAC	AAGGAATGTA	CCCTTGTCCT	GATTAAAAAT	2340
CCAGTCGGTG	CAACCCAAGC	TATCGAAATG	ATCAAACCTAG	CACCTTATCC	ATTTAGCCTA	2400
TCTGTCCTCC	TTAATGCCAA	CTATGCAGAT	GGAATTGACA	CTAGCTGGAT	CTGGGATGCA	2460
GACTTTGAAC	AAATCACTGA	CATGGACATT	CCTGAAATCA	ACGCTGGCGG	TGTTTCGTCAT	2520
TCTGAAATCG	CTCGTCGCCT	CCGAGTGACT	GGCTATCCAG	CTGAGAAAAT	CACTGAAACG	2580
AGTAATCTGG	AGCAAGTTCT	CAAGACCATT	GAGAATCAAG	ACTGCAAGCA	TGCCTATATT	2640
CTGGCAACTT	ATACTGCCAT	GCTGGAATTT	CGTGAAGTGC	TGGCTAGTCG	TCAGATTGTT	2700
AGAAAGGAGA	TGAACATAATG	GTTTATACTT	CACTTTCCTC	AAAAGATGGC	AATTACCCCT	2760
ATCAGCTCAA	CATTGCCCAC	CTCTACGGAA	ATCTCATGAA	TACTACGGGG	ACAATGGAAA	2820
CATCCTCATG	CTCAAGTATG	TGGCTGAAAA	ACTGGGAGCC	CATGTGACCG	TTGACATCGT	2880
TTCTCTCCAT	GATGACTTTG	ATGAAAATCA	CTACGACATC	GCCTTTTTCG	GTGGTGGTCA	2940
AGACTTTGAA	CAAAGTATCA	TTGCAGACGA	CCTACCTGCT	AAAAAAGAGA	GCATTGACAA	3000
CTACATCCAA	AACGACGGTG	TAGTTCTGGC	TATCTGCGGT	GGTTTCCAAC	TATTGGGTCA	3060
ATATTATGTT	GAAGCTTCAG	GAAAACGTAT	CGAAGGGCTA	GGGGTCATGG	GACACTACAC	3120
GCTCAACCAG	ACCAATAACC	GTTTTATCGG	TGACATCAAG	ATTCACAATG	AAGATTTCGA	3180
TGAAACCTAC	TATGGATTTG	AAAATCACCA	AGGTCGTACC	TTCCTCTCTG	ATGACCAAAA	3240
ACCGCTGGGA	CAGGTTGTCT	ATGGAAATGG	AAACAACGAA	GAAAAGGTCG	GTGAAGGGGT	3300
TCATTATAAG	AATGTCTTTG	GTTTCCTACTT	CCACGGGCCT	ATCCTCTCTC	GTAATGCCAA	3360
TCTGGCTTAT	CGCCTAGTTA	CTACTGCCCT	CAAGAAGAAA	TATGGTCAGG	ACATCCAAC	3420
CCCTGCCTAT	GAGGACATTC	TCAGCCAAGA	AATCGCTGAA	GAGTACAGTG	ACGTCAAAAG	3480
CAAGGCTGAC	TTTTCTTAAA	CAAAGGAAAA	TGATATCAAA	GAACTCCGTT	ATCTTGTCGG	3540
AGTTTTTTGT	CTTTTCTTTT	ACCCTTCTCC	CTTGCATTTT	CTCTCATTTT	TTGCCAAAAT	3600
AGAGGGGTAG	AAAGAAGGTA	GCATATGTCT	AAATTACAAC	AAATCCTAAC	ATATCTTGAA	3660

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TCAGAAAAAC	TAGACGTCGC	TGTCGTATCT	GACCCCGTCA	CAATCAATTA	CCTCACTGGT	3720
TTTTACAGTG	ATCCCCATGA	ACGCCAAATG	TTCTCTTTTG	TCCTAGCAGA	TCAGGAACCT	3780
CTCCTCTTTG	TCCCAGCTCT	TGAAGTAGAA	CGTGCAAGTA	GCACCGTTTC	CTTCCCAGTA	3840
GTGGGCTATG	TCGATTCTGA	AAATCCATGG	CAAAAAATCA	AACATGCTCT	TCCACAACCT	3900
GACTTCAAAC	GTGTCGCTGT	TGAGTTTGAC	AATCTCATCT	TGACCAAATA	CCATGGTTTG	3960
AAAACAGTTT	TTGAGACTGC	TGAGTTTGAC	AACCTCACTC	CTCGTATCCA	ACGCATGCGC	4020
CTCATCAAAT	CAGCTGATGA	AGTGCAAAAA	ATGATGGTTG	CAGGTCTTTA	TGCTGACAAG	4080
GCTGTTTCATG	TTGGTTTTGA	CAATATTTCT	CTTGATAAGA	CTGAGACAGA	TATCATCGCA	4140
CAAATCGACT	TTGCCATGAA	ACGTGAAGGT	TATGAAATGA	GCTTTGATAC	CATGGTCTTG	4200
ACTGGTGATA	ATGCTGCGAA	TCCACACGGC	ATTCCAGCAG	CTAATAAGGT	TGAAAATGAT	4260
GCTCTTCTCC	TCTTTGACCT	GGGTGTTCTG	GTCAATGGCT	ATGCGTCAGA	TATGACTCGT	4320
ACAGTCGCTG	TCGGCAAACC	AGACCAATTC	AAGAAAGATA	TTTACAACCT	GACTCTTGAA	4380
GCCCAACAAG	CTGCTCTTGA	CTTTATCAAG	CCAGGTGTGA	CTGCTCATGA	AGTGGACCGC	4440
GCTGCCCCGTG	AGGTCATCGA	AAAAGCTGGT	TATGGTGAGT	ACTTCAACCA	CCGTCTCGGG	4500
CATGGTATCG	GTATGGATGT	CCATGAATTC	CCATCTATCA	TGGAAGGAAA	CGACATGGTC	4560
ATCGAAGAAG	GCATGTGCTT	CTCTGTTGAA	CCAGGTATCT	ATATCCCTGG	TAAAGTCGGT	4620
GTTCGTATTG	AAGACTGCGG	TGTTGTTACC	AAGGATGGCT	TCAACCTCTT	TACAAGCACC	4680
AGCAAAGATT	TGCTTTATTT	TGATTAAACT	ATATAGCCCC	TATGCTTTCC	TTTCAAAATA	4740
TCTAGGGGCT	ATTTTATTGT	CATTTTCTG	CTATTATGCT	AAAGAAATTG	GCTGCAATAA	4800
TCTAACCCTA	AGTGTCTGGA	ATGATAACGA	GGGTGCTCTC	CGCTTTTATC	AAAGACAAGG	4860
GATGAAACCC	CAAGAAACAA	CAATGGAAAT	GATAATTGAT	TAAGAAGTCA	TCTATCAAAA	4920
GATGTTAGAA	AAAGTTCAAT	TTCACTAGAA	AATGAGGAAA	ATCTCCCCAC	AATAAACGC	4980
ATAGTATCAG	GTATTGTGTA	CTGACCCCAA	ACAGTTAGAC	AATTAATTTA	TCCGAAGGAT	5040
TTAGTTCTGT	ACTGCACAGG	ACTAAGTCCT	TTTAGTTTTA	CCTTAATTCG	TTTGTTGTTG	5100
TAGTAATCAA	TATAGTCTAT	AATGACTTGT	TCCAATTGGT	TAAGTGATTT	AAATGTTTTT	5160
TCATAGCCAT	AAAACATTTT	GGATTTTAAA	ATGCCAAAGA	AAGATTCCAT	CATACCGTTG	5220
TCTTGGCTGT	TTCCCTTGCG	TGACATAGAT	GCTTGAATTC	CCTTATTCTC	TAGGAACCGA	5280
TGATAAGAAT	CGTGTTGGTA	TTGCCAGCCT	TGGTCACTAT	GGAGAATCGT	ATTCTCGTAG	5340
TGCTTCTCTT	TGAATGCCTG	TTCCAACATT	GTTTGTACTT	ATTCTAAATT	AGGCGAACAA	5400
GAAAGATTAA	AAGCAATAAT	TTGCTGTGTA	AAGCCATCTA	AAACTGGTGA	TAAGTAAAGC	5460

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TTTTGAGTAC TTGCTGGAAT GGCAAATTCA GTCACATCTG TGTAGCACTT TTCCATTGTT	5520
TTAGAGCCTT CAAATTGGGC TTGAATGAGA TTCTCTGCCT TCTTACCAAC GTCTCCTTTA	5580
TGAGAAGAAT ATTTTCGTTT CTTTCGCATT TTAGCTTGTA AATTGAGTAC TTTCATCAAG	5640
CCTTGAACTC TTTTATGATT TACCAGATAA CCACGATTTC TTAGTTCTAA ATGAACCCGG	5700
CGATAAGCAT AATTTCCTT GTGTTCGATA AAGATGGATT GAATTTTCAGT TTTAAGCTCT	5760
TGGTCTTTAT CTGTTTGTG TAGCTGTTTC AAGTGATAGT AGTAGGTCCA ACGAGCTAGT	5820
TTAATGGCTT CTAGAAGAAG ATCTAACGAA AACTCAGTCA TTAATTCTTG AACAATTTCT	5880
GTCTTTCTTC TTTCTCTTTT TCCTCCTTCA ATCGGAGTTC TCTTAACCTT TTTAGGATGG	5940
CATTCTCCGC TCTCAGGTAC TCTCCCTCTT GTTTTCTCAA CAATAGTATA CCCGTTTTTC	6000
CTGTATTGTG CTAGCCAGTT AAGAAGTATC GTACGACTTG GGAGACCGTA TTCAAGAGAA	6060
ACTCTATCTT TAGTCCAGCC TTCATGTCAG ACTTTATTAA CCCCATTAT TCACCCCAA	6120
TCTAAAAACC ATCCAGAATC CTTGCCTTAG CTTAGATCCT GGATGGTTTC TTTTTTCACC	6180
CAATGGGTGT TTTTTACTAG AAAAAAAGA GTTTCCCCTT TATGGTATAA GTGTAGAAAA	6240
AAACACAAAA AGAAAGGAAA CTCACATGAA CAGTTTACCA AATCATCACT TCCAAAACAA	6300
GTCTTTTTAC CAACTATCTT TCGATGGAGG TCATTTAACC CAGTATGGTG GTCTTATCTT	6360
TTTTTCAGGAA CTTTTTCCC AGTTGAACT AAAAGAGCGG ATTTCTAAGT ATTTAGTAAC	6420
GAATGAmCAA CGCCGCTACT GTCGTTATTC GGATTCAGAT ATCCwTGTC AGTTCCTCTT	6480
TCAACTGTTA ACAGGTTATG GAACGGAATA TGCTTG	6516

## (2) INFORMATION FOR SEQ ID NO: 106:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 14654 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 106:

TTTTCAACCC ATATCGTGGC TCCTGAATAC TACTTACTGA CAACTATGCT ATCAGAGACT	60
TCTCTACTTG TTTTCTATAT CATTTTCATC CATAGAAAAC AACTCATCCA CTTGGGACAT	120
ATCTTTAGCT ATACTGTTTCG ATACTCTCTC TTTTCACTTT CCTTTGTAGC AATTTATTTT	180
CTGATTAATT TCGTGTATCC TGTAATATG GTCATTAATT TGCCATTTTT GATTAATACT	240
GGTTTGATTG TCTTGCTATC AGCTATCTCT TATATTAGTC TACTTGTCTT CACAAAAGAT	300



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AGCATTTTCT	ATGAATTTT	AAACCATGTC	CTAGCCTTAA	AAAATAAATT	TAAAAAATCA	360
TAGGAGTTTA	AAATGAAACA	ACTAACCGTT	GAAGATGCCA	AACAAATTGA	ATTAGAAATT	420
TTGGATTATA	TTGATACTCT	CTGTAAAAAG	CACAATATCA	ACTATATTAT	TAACTACGGT	480
ACTCTGATTG	GGGCGGTTTC	ACATGAGGGC	TTTATCCCTT	GGGACGACGA	TATTGATCTG	540
TCCATGCCTA	GAGAAGACTA	CCAACGATTT	ATTAACATTT	TTCAAAAGGA	AAAAAGCAAG	600
TATAAGCTCC	TATCCTTAGA	AACTGATAAG	AACTACTTTA	ACAACTTTAT	CAAGATAACC	660
GACAGTACGA	CTAAAATTAT	TGATACTCGA	AATACAAAAA	CCTATGAGTC	TGGTATCTTT	720
ATCGATATTT	TCCCTATAGA	TCGCTTTGAT	GATCCTAAGG	TCATTGATAC	TTGTTATAAA	780
CTGGAAAGCT	TCAAACTGCT	GTCTTTCAGT	AAACATAAAA	ATATTGTCTA	TAAGGATAGC	840
CTTTTAAAAG	ATTGGATACG	AACAGCCTTC	TGGTTACTCC	TTCGACCGGT	TTCTCCTCGT	900
TATTTTGCAA	ATAAAATCGA	GAAAGAAATT	CAAAAATATA	GTCGTGAAAA	TGGGCAATAT	960
ATGGCTTTTA	TCCCTTCAAA	ATTTAAGGAA	AAGGAAGTCT	TCCCAAGTGG	TACCTTTGAT	1020
AAAACAATCG	ATTTACCCTT	TGAGAATTTA	AGCCTTCCTG	CACCTGAAAA	ATTTGATACT	1080
ATTTTGACAC	AATTTTATGG	AGATTATATG	ACCCTACCAC	CAGAAGAAAA	ACGCTTCTAC	1140
AGTCATGAAT	TTCACGCTTA	TAAATTGGAG	GATTAGGATG	CAATATTTAG	AAAAAAAAGA	1200
AATTAAAGAA	ATTCAACTAG	CCCTGCTGGA	CTATATTGAT	GAGACTTGTA	AGAAACATGA	1260
TATTCCTTAT	TTTCTCAGTT	ATGGAACCAT	GCTTGGAGCC	ATCCGCCACA	AAGGTATGAT	1320
TCCTTGGGAT	GATGATATTG	ATATTTCCCT	TTATCGTGAG	GATTATGAGC	GTTTACTGAA	1380
GATTATTGAA	GAAGAAAATC	ACCCTCGCTA	CAAGGTTCCT	TCCTACGATA	CATCTTCTTG	1440
GTA CTTCAT	AATTTTCGCAT	CGATTTTGGA	CACTTCTACT	GTTATAGAAG	ACCATGTTAA	1500
GTACAAGCGT	CATGATACCA	GCCTTTTCAT	CGATGTCTTC	CCAATTGATC	GATTTACAGA	1560
CTTGAGCATT	GTCGACAAGA	GCTATAAGTA	TGTGGCTCTT	CGTCAACTAG	CTTATATCAA	1620
AAAATCACGA	GCAGTTCACG	GTGATAGCAA	ACTAAAAGAT	TTTCTTAGAT	TATGTAGCTG	1680
GTACGCTCTC	CGATTTGTCA	ATCCTCGCTA	CTTTTACAAG	AAAATTGATC	AACTAGTCAA	1740
AAATGCTGTA	ACCAACACTC	CTCAATATGA	AGGAGGAGTT	GGGATCGGTA	AGGAAGGGAT	1800
GAAAGAAATC	TTCCAGTTG	ATACCTTTAA	AGAACTGATT	TTAACTGAGT	TTGAGGGCCG	1860
TATGTTGCCT	GTTCCCAAAA	AATATGACCA	ATTTTAAACC	CAGATGTATG	GCGATTATAT	1920
GACACCACCA	TCAAAAGAAA	TGCAAGAGTG	GTATAGTCAT	AGCATTAAG	CTTATCGCAA	1980
AAACTGATTG	AGGGGGATTA	TACAAACTAC	TAAGATAGAG	GTTATTCAAA	AACATAATTT	2040
TAGTAGAAAA	TGAAATACAT	ATTCCCACAA	TAAAACGCAT	CATATCAAGG	TTTTTGAAAA	2100

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ACCTTGATAT	GATGCGTTTT	ATAATTTTAA	AGACTTTTTT	CTATAGTAGA	TTGAAATAAG	2160
ATGCGAACAA	ATCAATTAGA	AAATTCAAAT	TAATTTATAG	AAATATTTTA	GTATTCCTGT	2220
GTA CTGTTCT	AAATTCAGTC	TGCTATATCT	TATTTTTCTA	TTTAAATCGC	TTCTGTAACA	2280
AAGCTACGAC	TTTCAAGTAC	CTTAAGCATG	GCATTAGCTG	TATCTAGCGC	TGTGAAGAGG	2340
GGCACCCCGT	GTTCAATGGC	TGAACGACGA	ATTTGCTCAC	CATCTTCGTC	AGCAGTTCGT	2400
TTTGTTCCTA	CTGTGTTAAT	GATAGCTTGA	ATTCTTCCTT	TGCGTACAAA	ACTTGGGATA	2460
TCCTTATCGT	CATCACCAAT	CTTACCAACA	GGTTGGGCTT	GCAAGCCATG	ACTAGCAAAG	2520
AAGGCTGCTG	TCCCTTCTGT	CGCAAGGATT	CCATAACCAA	TGTTTTGGAA	ACGACGAGCC	2580
AAGTTCAAGG	CTTCTTCTTT	GGCATCATCA	GCGATGGTAA	AGACGACATT	ACCAAAAGTT	2640
GGCAAGTGTA	GATAAGAAGC	TTCAAAGGCT	TTATAGAGAG	CTTTTTCCAA	AGTAGCATCA	2700
GAACCCATAA	CTTCACCTGT	TGACTTCATT	TCAGGACCGA	GCAAGCTGTC	TACCTTAGCT	2760
AGTTTGGTAA	AGGAGAAGAC	AGGTGCCTTG	ATATGAACAC	GGGTGCTTTC	AGGGTAAAGT	2820
CCATTTTGGT	AGCCAAGTTC	TGATAAACTT	TGACCAAGAA	TGAGTTTGGT	CGCTACTTGA	2880
GCCATAGGAA	TATTGGTTAC	CTTAGATAGG	AATGGAACAG	TACGGCTGGC	ACGTGGATTG	2940
ACCTCAATAA	CGTAGACTTT	TTCATCCTTG	ATAACAACT	GGATGTTTAT	CATTCCAAGG	3000
CAGTGAAGAC	CGATTGCTAA	GCGTTTGGTG	TAGTCTGCGA	TGGTCTCCTG	AACCTTTTGC	3060
GACAAGGTTT	GTGGTGGGTA	AACAGCCATT	GAGTCACCTG	AGTGGACACC	AGCACGTTCC	3120
ATATGCTCCA	TGATACCAGG	AATGAGTACA	TTTTTTACCAT	CTGAAATGGC	ATCAACTTCG	3180
CACTCTTGCC	CAACGATATA	AGAGTCGACA	AGA ACTGGGT	GGTCTGGACT	AGCCTTAACA	3240
GCAGTTCGCA	TGTAAGAACG	AAGGTCTTCT	TCGTTTTCAA	CGATTTCCAT	GGCACGTCCA	3300
CCAAGTACAT	AAGATGGGCG	GACAAGAACT	GGGAAGCCAA	TCTTGCGAGC	TGCAAGAGCT	3360
GCTTCTTCTT	CATTGGTAGC	CGTTTGTCTT	GGTGGCTGTG	GAATATCCAA	TTCTTTGAGA	3420
GCTTGCTCGA	AGAGGTCACG	GTCTTCGGCA	CGATCTAGGT	CAGCAACCTG	TGTACCAAGG	3480
ATGGTCACAC	CTGCTTTTGC	CAATGGCTCC	GCAAGGTTGA	TGGCTGTTTG	ACCACCGAAC	3540
TGAACGATAA	CTCCCTTTGG	TTGTTCCAAG	TCAATGACGT	TCATAACATC	TTCGAATGTC	3600
AATGGCTCAA	AGTAAAGCTT	ATCTGATACA	GAGAAGTCTG	TTGAAACGGT	CTCTGGGTTT	3660
GAGTTCATGA	TGATAGCTTC	ATAACCAGCT	GCCTGGATAG	CCTTAACAGA	GTGAACGGTT	3720
GCGTAGTCAA	ACTCAACCCC	TTGACCGATA	CGGATTGGAC	CTGAACCTAG	GACAAGTACA	3780
GATTCTTTAT	CAGATCTGAT	AGATTCATTT	TCCCAACCAT	AGGTTGAATA	GAAATATGGC	3840

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GTTTCGGAGT	CGAACTCTGC	CGCACAAAGTG	TCTACCATCT	TATAAACTGG	AACAATCTTG	3900
TTTTCCAAGC	GAAGTTGGCG	AACTTTATCA	TCAGTCGTTC	CCCAGAGTTC	AGCAATCTTA	3960
CGGTCTGAAA	AACCATTAAG	TTTGGCTGTT	TTCAAAACTT	CTAAATCTTG	TGGATGAGCA	4020
CCCAATTCTT	GCTCAATTTT	AAAGATATGC	AAGAGTTTAT	CAAGATAGAA	GATATCAATT	4080
TTTGTAAGCT	CTGCAATTTT	TTCAGGTGTG	TAGCCACGAC	GAATGGCTTC	TGATACGTAG	4140
AAGAGACGGT	CATCTTGGGC	TTTGACAACC	TTTTCAATCA	AGGCATCATC	AGAAACTGCT	4200
GCAAGTTCAG	GTATTTTCAAT	GTGGTGCACC	CCAATTTCAA	GGGAGCGGCA	GGCCTTGAGA	4260
AGAGATTCCT	CGATGTTACG	ACCGATTGCC	ATGACTTCTC	CAGTCGCCTT	CATTTGTGTA	4320
CCGAGACGGC	GTTCAACCCTT	TTCAAACCTG	TCAAATGGGA	AACGTGGAAT	CTTAGCAACT	4380
ACGTAGTCAA	GGGCTGGTTC	AAACATGGCA	TAGGTTGAAC	CTGTAACTGG	GTTTATAACC	4440
TCATCCAAGG	TCAAACCTAC	TGCAATCTTG	GCAGCCAAC	TAGCAATCGG	ATATCCTGTC	4500
GCTTTAGAAG	CAAGGGCTGA	CGAACGTGAT	ACACGAGGGT	TACTTTCGAT	AACATAATAC	4560
TTGAAGCTGT	TAGGATCAAG	AGCTAGCTGA	ACATTACATC	CACCTTCAAT	CTTGAGGGCA	4620
CGAATAATGC	TCAAGCTCGC	ATCACGAAGC	ATTTGGTTTT	CATAGTCTGA	CATGGTTTGC	4680
GCAGGGGCAA	ATACAATGGA	ATCCCCTGTG	TGAATCCCAA	CTGGGTCAA	GTTTTCCATG	4740
TTACAAACAA	CCAAGGCATT	GTCAGCTGAG	TCACGCATCA	CTTCGTATTC	AATTTCCCTG	4800
AAACCGGCAA	TCGAACGCTC	AATCAAACAT	TGGGTAACAG	GTGACAATTT	CAAACCATTT	4860
TCAGTGATTT	CACGCAATTC	TTTCTCGTTG	GCACACATAC	CACCACCAGT	ACCACCAAGG	4920
GTAAAGGCTG	GACGAACGAT	GACTGGGTAG	CCAATTGTCT	CTGCAAAGGC	AACTGCTTCT	4980
TCTACTGTGT	TAACAATTTT	AGATTCTGGA	ATGGGTGTGT	CAAGCTCTTC	CATCAATTGT	5040
TTAAAGAGGT	CACGGTCCTC	CGCTTGGTCA	ATGGCAGATA	ATTTGGTACC	CAGAAGTTCA	5100
ACGCCAAGCT	CGTCTAGGAT	ACCATTTTTT	GATAATTCCA	TGGCCATGTT	GAGACCTGTC	5160
TGACCACCGA	GTGTTGGTAG	CAAGGCATCT	GGACCTTCCT	TACGAAGAAT	ACGTGTCACA	5220
AACTCAAGTG	TAATCGGTTC	AATGTAAACC	TTGTCAGCAA	TTTCCTTGTC	CGTCATGATG	5280
GTTGCAGGAT	TTGAGTTAAC	CAAAACAACC	TCATAACCTT	CCTCTTTCAA	CGACAAGCAA	5340
GCCTGAGTCC	CAGCGTAGTC	AAACTCAGCA	GCCTGACCAA	TAATAATCGG	ACCAGAACCA	5400
ATCACCATAA	TTTTTTGAAT	ATCAGTACGT	TTAGGCATAT	ATAAGATATT	AAGGGTGTCA	5460
AGCGGACAAA	GCTAAAATAG	GAGTTATGAC	GAAGAACTGT	CAGTTCTAGG	AATAACTATC	5520
TTTTTAGCAC	CGTCCGTAGC	CCGTATTCAG	TTCAAGCAAT	ACGGAGCACC	CTTCTCCTTT	5580
CTATTCGTCT	CCTCTCAGGG	CGACATTAAA	TAAGATACAA	AGGACGAATA	GAAAGCGATT	5640

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GAATTTTAGG	AAATCAAGGA	AGGATTGACA	ATCCAAGTTG	GTTTCTCTAC	ATTCTGAGCT	5700
TTCCGTCCGT	G TTCAGTTAC	ATAAATTCTC	CGACGAGCTT	TTACTCGTTC	TTAGTTTGAT	5760
TGTTTAAAAA	CTTCCATCAT	CTCGATAAAC	TCGTCAAATA	GGTAGCTAGC	GTCGTGTGGC	5820
CCAGGAGCTG	CATCTGGGTG	GTATTGAACA	GAGAAAGCAG	GTTGGTATCT	GTGGCGCACA	5880
CCTTCCACTG	ACTTGTCATT	GATTTCTTCG	TGGGTAATAA	TCAAGTGCTC	TGGCAAATCC	5940
TCGCGGCTGA	CTGCATAACC	ATGGTTCTGG	CTGGTGAAGT	CTACTCGTCC	TGTTGCGATT	6000
TCACGTACCG	CATGGTTGAA	TCCACGGTGG	CCAAACTTCA	TCTTATAGGT	CTTAGCCCCG	6060
TTTGCCATTG	CAAAGAGTTG	GTGTCCCATA	CAAATACCAA	AGATTGGAAT	TTTTCCTTGT	6120
ACACCGCGAA	TCATGTCGAG	TGCTTGTGGA	ACGTCTTCTG	GGTTACCTGG	ACCATTTGAC	6180
AACATAACTC	CGTCAGGATT	GAGATGGAGA	ATTTCTTCAG	CCGTTGTCTG	ATAAGGAACA	6240
ACTGTCACGT	TACAGTTGCG	TTTAGAAAGT	TCACGTAGGA	TTGAGTGCTT	GAGACCAAAG	6300
TCCACTAGCA	CCACGCTCAA	ACCAACTCCT	GGAGCTGGAT	AAGACGTTTT	AGTAGAAACC	6360
TGTTTGATAT	TGTCTGTCGG	TAAAACTGTT	GCTTGGAGCT	GGTCCGTCAC	ATGGTCCATA	6420
CTGTCCCCAA	CATGGGTCAA	GGTTGCACGC	ATAGTACCAT	GCTTACGGAT	AATCTTGGTA	6480
AGAGCACGCG	TATCAATTCC	TGAAATCCCT	GGAATTTTCT	TGGCTTTCAA	AAATTCATCC	6540
AAGGTCATTT	GGTTGCGCCA	GTTGCTAGCT	CTACGCGCTT	CTTCAAAAAC	AACGACTCCC	6600
TTACAAGTTG	GAATAATGGA	TTCATAATCA	TCACGATTAA	TACCATAATT	TCCTACCAAA	6660
GGATAAGTAA	AGGTCAAGAT	TTGTCCATTA	TAAGACTGGT	CTGTAATGGA	TTCTTGGTAG	6720
CCGGTCATCC	CTGTATTAAA	GACGATTTCT	CCTGTTACAT	CAATATCTGC	TCCGAAGGCC	6780
TTGCCTTCAA	AAACTGTGCC	ATCTTCTAAT	ACTAGAATTC	TTTTTGTCAT	ATTTTCACCT	6840
CTCGTGGACG	CTCACTGGCG	TCTTTTAAAC	TCTTGTGTTT	TAGTTGGCGT	TTCTACTCGC	6900
TAGTACGGAT	TCTAAGATTG	CCATTCTGAAC	AAAGACACCA	TTGGTCATTT	GTTGGACAAT	6960
CCGTGATTTT	GGTGCTTCAA	CCAAGTGGTC	TGCTATTTCT	ACATCACGAT	TGATTGGAGC	7020
TGGGTGCATG	AGGATTGCTG	TTTCTTTCAA	ACGATCGTAA	CGTTCTTGAG	TCAAGCCATG	7080
TTGGGCATGG	TAGTCTTCTT	TTGAAAATAC	AGCTCCACTA	TCATGGCGTT	CGTGTTGCAC	7140
ACGGAGAAAC	ATCATGACAT	CAACCTGATC	AATGATTTCA	TCAATGGTTA	CAAACGTGCC	7200
ATAGTCTGCA	AACTCTTGAC	TTCTCCATTC	CTCAGGTCCA	GCGAAAAAGA	GTTTCAGCTCC	7260
CAAGCGTTTC	AAAATCTGCA	TATTGGATTT	GGCAACGCGT	GAGTGGTCCA	AGTCACCTGC	7320
AATAGCAACT	TTAAGACCCT	CAAAGTGGCC	AAATTCCTCA	TAAATGGTCA	TCAAATCAAG	7380



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CAAGCTCTGG	CTAGGGTGT	GGCCCGAACC	ATCTCCACCA	TTGATGATGG	AAGTCGTAAT	7440
CGTTGGACTA	GCAATCAATT	CTCTATAGTA	GTCGACCTCT	GGATGGCGAA	TCACACAGAC	7500
ATCCACTCCT	AAAGCAGACA	GAGTCAAAAT	GGTGTCTATA	AGTGTCTCAC	CCTTATTAAC	7560
CGAGCTAGTC	TTCACATCAA	AGTCAAGTCG	TTCCAATCCA	AGTTTAATCT	CTGCGACTTC	7620
AAAGGACTTA	TGTGTCCGTG	TAGAATCCTC	AAAGAAGAGA	TTGGAAACAA	TCGGATGGTC	7680
TTCATAGGGA	AGCTGGGCTC	CATTTTAA	CTCAATTCCT	CGCTTGATCA	ATTTTATAC	7740
TTGATCGACA	GTGAGGTCTT	CCATGGACAC	CACATGGTTC	AATGCTTGTT	GATTTTCTGA	7800
CATGGCTACT	CCTTTAACTT	TCTAAGCTTC	TTCAGTAATC	AGAACTCTGT	CTTGGTCATC	7860
AAGTTCTGTC	ATCTCTACGA	TGATTTCTTC	AGAACGACTG	GTTGGGATAT	TTTTTCCAAC	7920
GTAATCTGGA	CGGATTGGCA	ATTCTCTATG	TCCACGATCG	ACTAGAACTG	CTAAACTCAC	7980
ACGCGCAGGA	CGACCATGAC	CGACAATATT	ATCAATAGCA	GCACGGATGG	TACGACCTGT	8040
ATAGAGCACA	TCATCCACCA	AGATAACTTC	GCGGTCTGTC	ACATCGACAG	AAACCAAAGA	8100
AGTATCTTCT	CCACTTTTAA	CATCATCACG	GAAAGGTTTA	GTATCCAATT	CCACAACAGG	8160
AACTGAAAGA	TTTTCTAACT	GCTTCAAACG	TTCTTGATT	CGGTGGGCAA	TAAAGACACC	8220
ACGAGTTTTA	ATACCAGCCA	AGACGATCTT	ATTCAAATCT	TTGTTGCGTT	CGATAATCTC	8280
ATAAGTAATA	CGCGTAATCG	CTCGTTTGAC	GGTCAATTCG	TCTACAACTT	CTTTTGTTTT	8340
CATGACAAAC	CTCCAAAAAG	AAAAGTCTCC	TTAAACAAGG	AGACTTGAAA	TTTATAGCCA	8400
AGCGAGCCCT	ACTGCACACA	GTATAGACTT	CACCCTTCTA	CTTTATCGCG	CTCCTTGCCT	8460
GCCTCACGGG	ACAGGTTTAA	AGGAATATTT	AGTTATCATT	TACTATAGCA	CAAAGCATGC	8520
TTAAATCAA	GCAAAAAGTT	TCAATGTAGC	ATCTTACAAA	TTGCTAAAAT	CATATAATTG	8580
TGGGTACTGG	TCACACTCTG	GATTTTTTGG	ATGGCAAATG	GCTCTTCCAA	AATAAATCAT	8640
GGCCTGATGG	GCAGCTAACC	ACTGCTCAGG	CGGCAAGATA	TCCATGACCC	GCTTTTCCAC	8700
CTCAAGTGGC	GTCGCTGATT	TTTTGACAAT	ATCGTGGTGT	TTGCAAATAC	GCTCCACA'G	8760
AGTATCCACT	GCAAAGGCTG	GAATTCCAAA	TCCTACACTC	ATGACAACAT	TGGCTGTCTT	8820
GCGACCAACA	CCTGCCAAAC	TCTCCAATTC	TTCACGTGTC	TGAGGGACTT	GACCATCAAA	8880
ATCGTCTAGT	AACTGTTGGG	CACATTTTTT	AAGGAATTTA	GCTTTATTCC	GATACAATCC	8940
CAAGCGAGAA	ATATGTGAAG	CAATCTCACT	CTCTGTCGCT	ACAGACATAG	CTTGGGGTGT	9000
TGGAAAGGCA	ACAAAGAGAC	CTGGTGTGGC	CTTATTTACC	GCTGCATCTG	TCGTCTGGGC	9060
TGATAACATG	ACCGCAACCA	GGAGTTCAAA	ATGATTGGTA	AAATCAAGAC	TAGGCTTGGC	9120
ATCTGGGAAG	AGGGCAATGA	TTTCTTCTAG	CACCTTTCGT	GCTCGTTTTT	TTGACAAGAC	9180

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CATTATTCAT	CTCCGTCAA	TAGTCCTTGT	AAGCCAGCAA	AAGGACTGTT	TTCTTCTTTC	9240
TTTACTGCTT	TTTGAGCTTG	GTATTCTTCC	TCTGTCATGA	TTTGCCAGTC	ATTTCCCTGAG	9300
ATAAATCCTT	GACCAGCTTC	TTCTTCAGCC	GTCAAGACCT	TGATAGGAAT	GTTTAGCAGG	9360
ATATTGTCTG	ATACACTCTC	AGCAAGGTCA	AGCTCCCCAT	TTTCGATGGG	CAAGACCAAG	9420
TCATCATCTA	AAACTTCTTG	ATCTAGCTGG	TTAGTTGCGC	CTTCCATGAA	AACTTCCGTG	9480
ACTGGATAAG	ATTCAACTAA	CTCAACTGGC	TCCATACTGC	GACTCGACGC	AAGAACAATG	9540
GTATAAGATA	GTTGATAATC	TAAGAAATAC	ATACGGTCTT	CATATTGTAC	TTTCCCAACT	9600
GCAAGGATAT	CTTTTACATC	TAAAATTTCT	TGATTACGTG	CACGCAGGTC	ATCAACTAAA	9660
TCTAACGTTT	GTTCAAAGTT	CAAACCTTCA	GACTGCTTAC	GAATTTCTTG	AATATTTAAT	9720
TTCATACTTC	CTCCATAAAG	ATTTACTCTC	TTGATTATAC	CATGAAAAGG	CTACAAATCA	9780
GCACACCAA	CTTTGTAATT	AAAATTCAAA	ATTTTAACAT	ATTTACTATG	ATAGTTTTAT	9840
TTTTTAGTGC	TATACTATAG	GGAAAGAGTA	CATCAGATCA	AGGAGGATGC	TCACATGGAA	9900
GACAAGAAAC	TCATTCAACT	CCTATCCAAG	TTAAATAAAA	GCTACCAAAA	CTGTAAACAG	9960
GGTACGGCAG	ATGATATTCG	ACTACAAGAG	CTGCTAAACA	CTACTATGCA	AGAGCTCAA	10020
AAAACGGAAC	AGTTGAACAA	CAGTATCTTA	ATTGATCTTG	AGAAATTTTA	CCAACCTACC	10080
AGTCTTCTGA	TTGGACTGGG	TAGCCTAAAA	CTAAACGATC	AAGCACGCAC	TGCTTGCGCA	10140
AACTATGATA	AATTCCATTA	CGATCATGTC	AAACACGTAC	TAAGTCTCTA	TGGACCTGTT	10200
TTTGAATTTT	AGAGCATAGA	ATTTCCAGTT	TTCTGTTGAC	AAAATTTCCCT	TAAAGGTATA	10260
ATATAAAGAT	ACTAATACTC	GGAGGTAAGG	GAGACATGAA	CAACTAAGTC	TATCAAATAA	10320
AGAACCTTTA	TTTAGTAGAT	CTTGTTTTTG	TCTCTTTTTG	TGTGCTCTTT	TATGCTCTTT	10380
TTCTGGCATG	TTAATAGAGT	TTTTTTTGACA	TAGACTTTGG	GCTCTACTAG	GTAAAGTAGA	10440
GCTTTTTGTT	ATGCACTATG	AACATTCTAG	AAAGGGAAAT	CATATGATAA	AAATCAATCA	10500
TCTAACCATC	ACACAAAACA	AAGATTTACG	AGATCTTGTA	TCTGACCTAA	CCATGACCAT	10560
CCAAGACGGG	GAAAAGGTTG	CTATTATTGG	TGAAGAAGGA	AATGGCAAAT	CAACCTTACT	10620
TAAAATTTTA	ATGGGGGAAG	CTTTGTCTGA	TTTCACTATC	AAGGGAAACA	TCCAATCTGA	10680
CTATCAGTCA	CTGGCCTACA	TTCCTCAAAA	AGTCCCTGAG	GACCTAAAAA	AGAAAACTTT	10740
ACACGACTAC	TTCTTTTTAG	ATTCTATTGA	TTTAGACTAC	AGTATCCTCT	ATCGTTTGGC	10800
GGAGGAATTG	CATTTTGATA	GCAATCGTTT	CGCAAGTGAC	CAAGAGATTG	GCAATCTATC	10860
AGGGGGCGAA	GCTTTGAAAA	TTCAGCTTAT	CCATGAGTTA	GCCAAACCCT	TTGAGATTCT	10920

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ATTTT TAGAT	GAACCTTCAA	ATGACCTAGA	CCTTGAGACA	GTTGATTGGC	TAAAAGGCCA	10980
GATTCAAAAG	ACCAGGCAAA	CCGTTATTTT	CATTTCCCAT	GATGAAGACT	TTCTTTCTGA	11040
AACGGCAGAC	ACTATTGTTC	ACTTGCGACT	GGTCAAACAC	CGTAAAGAAG	CGGAAACGCT	11100
AGTAGAGCAT	TTAGACTATG	ATAGCTATAG	TGAGCAGAGA	AAGGCTAATT	TTGCCAAACA	11160
AAGTCAGCAA	GCTGCTAACA	ACCAAAGAGC	CTACGATAAA	ACCATGGAAA	AACATCGGAG	11220
AGTTAAGCAA	AATGTAGAAA	CTGCGCTTCG	AGCTACCAAA	GATAGTACTG	CCGGTCGCCT	11280
ATTGGCTAAA	AAGATGAAAA	CTGTCCTCTC	ACAAGAAAAA	CGCTACGAAA	AGGCAGCTCA	11340
GTCCATGACT	CAAAAGCCAC	TTGAAGAGGA	ACAAATCCAA	CTTTTCTTTT	CAGACATCCA	11400
ACCATTACCA	GCTTCTAAAG	TCTTAGTCCA	ACTGGAAAAA	GAAAATTTGT	CCATTGACGA	11460
CCGAGTTTTG	GTTCAAAAAC	TACAAC TAAC	TGTCCGTGGC	CAAGAAAAAA	TCGGTATTAT	11520
CGGGCCAAAT	GGTGTGGGA	AATCAACTCT	GTTAGCCAAG	TTACAGAGAC	TTCTGAATGA	11580
TAAAAGAGAG	ATTTCACTTG	GTTTTATGCC	ACAAGATTAC	CACAAAAAAC	TGCAATTGGA	11640
TTTATCCCCA	ATAGCCTATC	TCAGTAAAAC	TGGGGAAAAA	GAGGAAC TAC	AGAAAATCCA	11700
ATCTCACCTA	GCTAGTCTCA	ATTT CAGTTA	TCCAGAAATG	CAGCATCAAA	TTCGCTCCTT	11760
ATCTGGCGGA	CAACAGGGAA	AACTCCTGCT	TTTG GATTTA	GTCCTGCGCA	AACC AAACTT	11820
TCTCCTGCTG	GATGAACCCA	CACGAAACTT	TTCTCCC ACT	TCTCAACCCC	AAATCAGAAA	11880
ACTCTTTGCT	ACCTATCCAG	GCGGTCTCAT	CACTGTTTCG	CATGACCGTC	GTTTCTTAAA	11940
AGAAGTCTGC	TCGATCATCT	ATCGCATGAC	AGAACACGGT	TTGAAGCTAG	TTAATTTAGA	12000
AGATTTATAA	ATTTGCAACA	TAGCAAAAAT	CCAGAGACGA	CCTCTGGATT	CTTTTACATC	12060
TGTTTTTAAAC	GTTCAATCCG	TTCTGAGATA	GGTGGGTGGG	TATAAAAGAG	TTTTTTGGAAC	12120
CCCCCACCTT	TCTTAGGATC	ATTGATATAA	AGGGCACTGC	TAGCATCATC	GACGTGGCGA	12180
CTCATAGGTT	TGCTATTGTC	CAACTTATCT	AGGGCATTA A	TCATTCCCTG	GGGATTGCGA	12240
GTCAGCTCGA	CACTAGATGC	ATCTGCCAGA	AATTCCCTCT	GACGAGAAAT	AGCGAGCTGA	12300
ACCAAGGTTG	CAGCGAGAGG	TGCCAGTACA	ATAGCTAGTA	GGGAAACCAC	TAGCATAATG	12360
ATTTCAAGAC	CATTTCCATC	TCGGTCATCA	TCACTTCGTC	TGCGACCTGC	TCCACCCCAC	12420
CACATCATAC	GACCTGCCAT	ACTAGAAAGC	ATGGTGATAG	CACTAGCAAG	GGCAACTGCA	12480
ATAGTCGAAA	TACGGATATC	ATAATTACGA	ATATGACTGA	CTTCATGTCC	CATAACAGCT	12540
TCTAGTTCTT	CACGATTCAT	GATAGCTAGT	AGACCTGAAG	TCGCAGCAAC	AGCCGCATTT	12600
TGAGGATTAG	AACCTGTCGC	AAAGGCATTT	AAGGCTGGAT	CATCAATGAT	GAAAACACGG	12660
GGCATAGGAA	TCTGAGCGAC	CAGAGCCATA	TCTTCCACTA	CATGGTAGAG	GTCTGGTGCC	12720

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GTTTGCTCAT	CCACCTCACG	CGCTCCATTC	ATGGACATGA	CAATCTCTGT	CGATTGAAAA	12780
ATCATAGACA	AAGCGTAGAT	AAAGCCGATA	ATCAGTGCAA	TAACCAAACC	ACCAAGTCCA	12840
GATCTTATAA	AGAGATAACC	AACCGCATAA	CCAACAAGAG	CTAAGAGTAG	GAAAAATACC	12900
AGCAACAAAA	TCCAGGTTTT	TCGTTTATTG	CTTGCAATTT	GATCAAACAA	CATCTTAGTC	12960
ACCTAAACCG	CTAAAATCAA	CTTTAGGAAC	CGACTTTTCC	TCTTCAGGTG	TTTGAAGGAA	13020
ATCTGCCGCT	TTAAATCCAA	ACATTCCAGC	GATAATATTG	CTCGGGAAAAG	TTTCTAATTT	13080
TACATTGTAG	TTGCTGACAA	CACTGTTATA	GAGTTGACGA	GAGTAAGAAA	TTTTATTTTC	13140
TGTGTTTGTC	AACTCCTCTT	GCAATTTAAC	AAAGTTAGCA	CTAGCTTTCA	AATCTGGATA	13200
GCTTTCTGCA	ACTGCAAAAA	TACCTGAAAC	CTGACGAGTG	AGGGCATCAC	TGGCTTTCAT	13260
AGCTTCTGCT	GGTGAAGTCG	CTGCCGCCAC	TTGGTTACGT	AGTTCTGCCA	CCTTTTCAAG	13320
GGTAGAACCT	TCATATTTGG	CATAACCTTT	TACAGTCTCA	ATCAAGTTTG	GCAAGAGGTC	13380
ATTGCGACGT	TTCAACTGAA	CATCAATCTG	ACTCCAAGCC	TCCTTGCTTT	GCATACGATT	13440
TTTAACCAAA	CCGTTATAGC	TAACAATCAC	AAAAATAACA	ATAAGAGCGA	TAActCCAAG	13500
AATAATCCAA	GTCATAATAT	AAGTCCTTTC	TGCTTTTAGA	TTAGTACCAG	TATATCAAAT	13560
TTTCTATGAT	TGTGGTAAAA	TAAGATGATA	CTAAAGAAGG	AAATAACTAT	GAAACCAAAA	13620
ACATTTTACA	ACTTGCTTGC	CGAGCAGAAT	CTTCCACTTT	CGGACCAGCA	AAAAGAACAA	13680
TTTGAACGTT	ATTTTGAGCT	CTTGGTCGAG	TGGAATGAGA	AGATTAATTT	GACGGCGATT	13740
ACGGACAAGG	AAGAAGTTTA	TCTCAAACAT	TTTTACGATT	CGATTGCACC	CATTCTTCAA	13800
GGTTTGATTC	CCAATGAAAC	TATCAAACCT	CTTGATATCG	GGGCTGGGGC	AGGATTTCCCT	13860
AGTCTACCAA	TGAAAATTCT	CTATCCGGAG	TTAGATGTGA	CCATTATTGA	TTCACTCAAT	13920
AAGCGCATCA	ACTTCCTACA	ACTCTTGGCT	CAAGAACTGG	ATTTGAACGG	AGTTCATTTT	13980
TACCACGGAC	GTGCCGAAGA	TTTTGCCCCA	GACAAGAACT	TCCGTGCTCA	ATATGATTTT	14040
GTAACAGCTC	GTGCGGTTGC	CCGTATGCAG	GTCCTATCTG	AATTGACTAT	TCCCTACCTT	14100
AAGGTTGGTG	GCAAACATAT	AGCACTCAAG	GCTAGCAATG	CGCCTGAGGA	ATTATTAGAA	14160
GCTAAGAATG	CCCTCAATCT	CCTTTTTTAGT	AAGGTCGAAG	ACAATCTCAG	TACGCCCTAC	14220
CGAATAGAGA	TCCGCGCTAT	ATCACAGTGG	TAGAAAAGAA	AAAAGAAACA	CCAAATAAAT	14280
ATCCACGTAA	GGCTGGTATG	CCAAATAAAC	GCCCACTTTA	AATTTTTTTAG	TAAACAAATG	14340
TTTACAAAAT	CAGCCTCGCT	CTTTTATTTT	TAGGCTCGGG	AAAAAATGAT	TTACAAAATC	14400
AGCCTCGCTC	TTTTATTTCT	AGGCTCGGGA	AAAAATGATT	TACAAAATCA	TTTTTTTCTG	14460



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CTATACTATC CTAAGCAAAG GTTTTTTAATG TCATCCCGTG AGGTGACGAA GACGCAGAAA	14520
TATTTAAAAC TCTTTAAAAT CTAAATTTTA AAGAAGTCTT ACTCTGAGGG CCTATTGCTG	14580
TAAAATAATG GGCTCTTTTT TGATGCCCAA AAGTGAGGTT TATATGAAAC AAGAATCAAC	14640
TGTTGATTTG TTAC	14654

(2) INFORMATION FOR SEQ ID NO: 107:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6405 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 107:

AGAAAAATCT GCTTTACAGA AAATAAAAAT AATAGGAGAA AATCTATGTC AGATTTGAAA	60
AAATACGAAG GTGTCATTCC AGCCTTCTAC GCATGTTATG ATGATCAAGG AGAAGTAAGC	120
CCAGAACGTA CGCGTGCCTT GGTTC AATAC TTCATTGATA AAGGTGTTCA AGGTCTTTAT	180
GTCAATGGTT CTTCTGGTGA ATGTATCTAC CAAAGCGTTG AAGATCGCAA GTTGATTTTG	240
GAAGAAGTCA TGGCGGTAGC AAAGGTAAAT TGACCATTAT TGCCCATGTT GCTTGCAATA	300
ATACTAAAGA TAGTATGGAA CTTGCTCGCC ATGCTGAAAG CTTGGGAGTA GATGCTATTG	360
CAACGATTCC ACCAATTTAT TTCCGCTTGC CAGAATACTC AGTTGCCAAA TACTGGAACG	420
ATATCAGTTC TGCAGCTCCA AACACAGACT ACGTGATTTA CAACATTCCT CAATTGGCAG	480
GGGTTGCTTT GACTCCAAGC CTTTACACAG AAATGTTGAA AAATCCTCGT GTTATCGGTG	540
TGAAGAACTC TTCTATGCCA GTTCAAGATA TCCAAACCTT TGTCAGCCTT GGTGGAGAAG	600
ACCATATCGT CTTTAATGGT CCTGATGAGC AGTTCCTAGG AGGACGCCTC ATGGGGGCTA	660
GGGCTGGTAT CGGTGGTACT TATGGTGCTA TGCCAGAACT CTTCTTGAAA CTCAATCAGT	720
TGATTGCGGA TAAGGACCTA GAAACAGCGC GTGAATTGCA GTATGCTATC AACGCAATCA	780
TTGGTAAACT CACTTCTGCT CATGGAAATA TGTACGGTGT CATCAAAGAA GTCTTGAAAA	840
TCAATGAAGG CTTGAATATT GGATCTGTTC GTTCACCATT GACACCAGTG ACTGAAGAAG	900
ATCGTCCAGT TGTAGAAGCG GCTGCTGCCT TGATTCGTGA AACCAAGGAG CGCTTCCTCT	960
AATCTAAAAG GAGGTATTTA TGACATATTA CGTTGCAATT GATATCGGTG GAACCAACAT	1020
CAAGTATGGT TTGGTTGATC AAGAGGGGCA ACTTCTTGAA TCGCATGAAA TGCCAACTGA	1080
GGCGCATAAG GGTGGACCTC ATATCTTACA AAAGACCAAA GATATCGTAG CTAGTTATTT	1140
AGAAAAAGGC CCAGTAGCAG GTGTTGCCAT ATCTTCTGCT GGGATGGTGG ATCCGGATAA	1200

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GGGTGAGATT	TTCTATGCTG	GGCCGCAAAT	CCCTAACTAC	GCAGGCACCC	AGTTCAAAAA	1260
GGAAATCGAA	GAAAGCTTTA	CTATTCCTTG	TGAGATTGAA	AATGATGTCA	ACTGTGCAGG	1320
TCTTGCTGAG	GCAGTATCTG	GTTTCAGGCAA	GGGAGCAAGT	GTGACACTTT	GCTTGACCAT	1380
TGGAACCGGT	ATCGGTGGTT	GCTTGATTAT	GGATAGGAAA	GTCTTCCATG	GTTTTAGCAA	1440
TTCAGCCTGT	GAAGTCGGGT	ATATGCATAT	GCAGGATGGA	GCTTTTCAAG	ACTTGGCTTC	1500
TACAACAGCT	TTAGTGAAAT	ATGTAGCTGA	AGCCCATGGA	GAAGATGTTG	ATCAGTGGAA	1560
TGGCCGTAGA	ATTTTCAAAG	AAGCCACTGA	AGGAAACAAA	ATCTGCATGG	AAGGTATTGA	1620
CCGTATGGTT	GACTATCTAG	GAAAAGGTCT	GGCAAATATT	TGCTACGTTG	CCAATCCAGA	1680
AGTGGTTATT	CTTGGTGGTG	GTATCATGGG	GCAAGAGGCT	ATCCTCAAAC	CTAAGATCCG	1740
TACAGCCTTG	AAAGAGGCTT	TGGTACCAAG	TTTAGCAGAA	AAAACACGAT	TAGAATTTGC	1800
CCATCACCAA	AATACAGCAG	GGATGTTGGG	TGCATATTAT	CATTTTAAAG	CAAAACAATC	1860
CTAGTTTGGC	TCAGCCAAAC	TAGGATTTTC	TTACACGTTT	TTGTCTACGA	TAGCCGTTGA	1920
GTTTTTTATT	TTCCCAGTAG	CTATTAAAGA	TTTTTTCCTT	GCTTTCGCGA	TTGATTTCCA	1980
AAAAGTAGGC	ATAAATCAAA	TCGATAAAGA	AGAGCATAGG	AAGTTGAGCG	GATATTCGTT	2040
GGATATAGGA	GGGTTGGCTG	TGGGTGGCTA	CAAGAACAGT	CTCTGTATAG	GTCTGGCTAT	2100
CTTTATTGGG	AACACTTGTA	AAGAGTACAG	TCTTTGCCCC	CATCTCCTTA	GCATCTAATA	2160
GACTATCTAA	AATAGAAGGA	GTTGAGCCTG	AAAGTGAGAA	GCCCAGTACT	AGACAATTTT	2220
CATCCATGAT	GCTGGTTGTC	CAGGCAAAGC	CGTCTTGGTC	TGTCAAAGCT	TCGCAGACCA	2280
CACCTAGTCG	CATAAAACGT	AATTTCAATT	CACGGGCGAC	GAGGCCAGAA	CTCCCTGTTC	2340
CAAAGAAGTA	GATACGCTCA	GCATCTTCGA	TTAGCTGGGC	AATTCGTTCT	AGTTGGATTT	2400
CGTCAATCAA	GTCTTGTTGT	TGTTCCCTCA	TATTGCTATA	ACTTCTGAGG	ACTCGTTTGG	2460
TCAGTGGACT	GTGCTTGGAG	ACTTGGTTGG	CTTGATTTTC	TGCCTGATGT	TGGTATTGGA	2520
AAATAAATTC	TCGGTAGCCA	GTAAAGCCAC	ACTTTTTAGC	AAAGCGGGTC	AAAGCAGCTT	2580
GAGAAATATG	TAATTTTTTG	GTGACTTGTT	GAGAAGATAA	ATCATCTGTA	ATCGTTTCAG	2640
CTTGCAAAAA	ATAGCGAGCG	ATTTCTTGTT	CTAGGTCTGT	CATTTCTTCA	AAATGTGAAT	2700
CAATGATAGT	TGCGATATCT	GGTTTGTTCCA	TAGGGAAAGC	TCCTTTACAT	GAGTCATACT	2760
GGAAGACTAG	ATCAGAGAAT	AGTCACACTT	CATTATAACA	CATAATATAA	GGATAGATAA	2820
ATAAAAACGC	ATCTCTGTTT	TAAAAACGAA	AAAATCGAAA	AAGCTTCTCT	CTTTTCCATA	2880
ATTTTCTACT	CAAATTGTGG	TACAATTAAG	AGTAAGATTT	TAAGTTAGAA	ATGAGACTGA	2940

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TTTGTATGAG	AAAATTTAAC	AGCCATTTCGA	TTCCGATTTCG	GCTTAATTTA	TTGTTTTCAA	3000
TCGTCATTTT	ACTCTTTATG	ACCATTATTG	GTCGTTTGTT	GTATATGCAG	GTTTTGAACA	3060
AGGATTTTTA	CGAAAAAAG	CTAGCTTCAG	CTAGTCAGAC	CAAGATTACA	AGCAGTTCAG	3120
CCCGTGGGGA	AATTTATGAT	GCTAGTGGA	AACCTTTGGT	AGAAAATACG	TTAAAGCAGG	3180
TTGTTTCCTT	TACGCGTAGC	AATAAAATGA	CGGCTACAGA	CTTAAAAGAA	ACAGCTAAAA	3240
AGTTACTGAC	TTATGTGAGC	ATCAGTTCTC	CAAATTTGAC	AGAACGCCAG	CTGGCGGATT	3300
ACTATTTGGC	TGATCCTGAA	ATCTATAAAA	AAATAGTGGA	AGCTCTCCCA	AGTGAGAAAC	3360
GCTTGGATTC	AGATGGCAAT	CGTCTATCCG	AATCAGAACT	GTATAACAAT	GCGGTCGATA	3420
GTGTACAAAC	GAGTCAACTA	AACTATACAG	AGGATGAAAA	GAAAGAAATC	TATCTTTTTA	3480
GTCAGTTAAA	TGCTGTTGGA	AACTTTGCGA	CAGGAACCAT	TGCGACAGAT	CCTCTAAATG	3540
ATTCTCAGGT	GGCTGTTATT	GCCTCTATTT	CAAAGGAGAT	GCCTGGCATT	AGTATTTCTA	3600
CTTCTTGGA	TAGAAAGGTT	TTGGAAACTT	CCCTTTCTTC	TATAGTTGGG	AGTGTATCCA	3660
GTGAAAAAGC	TGGTCTCCCA	GCGGAAGAAG	CAGAAGCCTA	TCTTAAAAAA	GGCTATTCTC	3720
TAAATGACCG	TGTAGGAACC	TCCTATTTGG	AAAAGCAATA	TGAAGAGACC	TTACAAGGAA	3780
AACGCTCGGT	AAAAGAAATC	CATCTGGATA	AATATGGCAA	TATGGAAAGC	GTGGATACAA	3840
TTGAGGAAGG	TAGTAAGGGA	AACAATATCA	AACTGACCAT	TGATTTGGCT	TTCCAAGATA	3900
GCGTGGATGC	TTTACTGAAA	AGTTATTTCA	ATTCTGAGCT	AGAAAATGGT	GGAGCCAAGT	3960
ATTCTGAAGG	TGTCTATGCA	GTCGCCCTTA	ACCCAAAAAC	AGGTGCGGTT	TTGTCTATGT	4020
CAGGGATTAA	ACATGACTTG	AAAACGGGAG	AGTTGACGCC	TGATTCCTTG	GGAACGGTAA	4080
CCAATGTCTT	TGTTCCAGGT	TCGGTTGTCA	AGGCGGCGAC	CATCAGCTCA	GGTTGGGAAA	4140
ATGGAGTCTT	GTCAGGAAAC	CAGACCTTGA	CAGACCAGTC	CATTGTCTTC	CAAGGTCAG	4200
CTCCCATCAA	TTCTTGGTAT	ACTCAGGCTT	ACGGTTCATT	CCCTATCACA	GCGGTCCAAG	4260
CTCTGGAGTA	TTCATCAAAT	ACCTATATGG	TCCAAACAGC	CTTAGGTCTT	ATGGGGCAAA	4320
CCTATCAACC	CAATATGTTT	GTCGGCACCA	GCAATCTAGA	GTCTGCTATG	GAGAACTGC	4380
GTTCAACCTT	TGGCGAATAT	GGCTTGGGTA	CTGCGACAGG	AATTGACCTA	CCAGATGAAT	4440
CTACTGGATT	TGTTCCCAAA	GAGTATAGCT	TTGCTAATTA	CATTACTAAT	GCCTTTGGGC	4500
AGTTTGATAA	CTATACGCCG	ATGCAGTTGG	CTCAGTATGT	AGCAACTATT	GCAAATAATG	4560
GTGTTGCTGT	GGCTCCTCGT	ATTGTTGAAG	GCATTTATGG	TAATAATGAT	AAGGGAGGAC	4620
TGGGTGACTT	GATTCAGCAA	CTGCAACCGA	CAGAGATGAA	TAAGGTCAAT	ATATCCGACT	4680
CCGATATGAG	CATCTTGCAC	CAAGGTTTTT	ATCAGGTTGC	CCATGGTACT	AGTGGATTGA	4740

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CAACTGGACG	TGCCTTTTCA	AATGGTGCCT	TGGTATCCAT	TAGCGGAAAA	ACAGGTACAG	4800
CCGAAAGCTA	TGTGGCAGAT	GGTCAGCAAG	CAACCAATAC	CAATGCGGTG	GCCTATGCCC	4860
CATCTGATAA	TCCCCAAATC	GCTGTCGCAG	TGGTCTTTCC	TCATAATACC	AATCTAACAA	4920
ATGGTGTAGG	ACCTTCCATT	GCGCGTGACA	TTATCAATCT	GTATCAAAAA	TACCATCCAA	4980
TGAATTAGAA	AGGAAATTAT	GCTTTATCCA	ACACCTATTG	CCAAGTTGAT	TGACAGTTAT	5040
TCTAAGTTAC	CAGGTATCGG	GATTAAGACG	GCTACGCGTC	TGGCCTTTTA	TACGATTGGG	5100
ATGTCTGCTG	ATGATGTCAA	TGAATTTGCA	AAAAATCTCC	TTTCTGCTAA	GAGAGAATTG	5160
ACATATTGTT	CTATTTGTGG	ACGTTTGACA	GACGACGATC	CTTGTTCTAT	CTGTACTGAT	5220
CCGACTCGTG	ACCAGACAAC	AATTTTAGTT	CTTGAGGATA	GTAGAGATGT	GGCAGCCATG	5280
GAAAATATCC	AAGAATACCA	TGGACTCTAT	CATGTCCTTC	ATGGCCTCAT	TTCTCCTATG	5340
AATGGTATCA	GTCCGGACGA	TATCAATCTC	AAGAGCCTTA	TGACTCGTCT	TATGGATAGT	5400
GAGGTTTCAG	AAGTGATTGT	GGCGACTAAT	GCTACAGCGG	ATGGTGAAGC	GACTTCCATG	5460
TATCTTTCAC	GTTTGCTCAA	GCCGGCTGGT	ATCAAGGTTA	CGCGTCTAGC	ACGAGGTCTC	5520
GCTGTGGGAG	CGGACATTGA	GTATGCGGAC	GAAGTGACAC	TCTTACGAGC	CATTGAAAAT	5580
CGGACAGAGT	TGTAAGTGTA	GGCAAATTTA	CGAACTCCAT	TCATTTATAA	AAAATCAAAG	5640
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AAGTTTTAAA	AAACCAAGCA	AATATGATAT	ACTAAAGAGC	GAGTATTCTA	GTAGAATTAG	5760
GACAAATAAT	ATGAAACAAA	CGATTATTCT	TTTATATGGT	GGACGGAGTG	CGGAACGCGA	5820
AGTCTCTGTC	CTTTCAGCTG	AGAGTGTCAT	GCGTGCGGTC	GATTACGACC	GTTTCACAGT	5880
CAAGACTTTC	TTTATCAGTC	AGTCAGGTGA	CTTTATCAAA	ACACAGGAAT	TTAGTCATGC	5940
TCCGGGGCAA	GAAGACCGTC	TCATGACCAA	TGAAACCAT	GATTGGGATA	AGAAAGTTGC	6000
ACCAAGTGCT	ATCTACGAAG	AAGGTGCAGT	GGTCTTTCCA	GTCCTTCACG	GGCCAATGGG	6060
AGAAGATGGC	TCTGTTCAAG	GATTCTTGGA	AGTTTTGAAA	ATGCCTTACG	TTGGTTGCAA	6120
CATTTTGTCA	TCAAGTCTTG	CCATGGATAA	AATCACGACT	AAGCGTGTTT	TGGAATCTGC	6180
TGGTATTGCC	CAAGTTCCTT	ATGTGGCTAT	CGTTGAAGGC	GATGATGTGA	CTGCTAAAAT	6240
CGCTGAAGTG	GAAGAAAAAT	TGGCTTATCC	AGTCTTCACT	AAGCCGTCAA	ACATGGGGTC	6300
TAGTGTCGGT	ATTTCTAAGT	CTGAAAACCA	AGAAGAACTC	CGTCAAGCCT	TAAAACTTGC	6360
CTTCCGATAT	GACAGCCGTG	TCTTGGTTGA	GCAAGGAGTG	AATGC		6405

(2) INFORMATION FOR SEQ ID NO: 108:



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## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11309 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 108:

CGAGCTCGGG TACCGGGATT TTAAGGAGTT TGATATGTAT AACCTATTAT TAACCATTTT	60
ATTAGTATTA TCTGTTGTGA TTGTGATTGC AATTTTCATG CAACCAACCA AAAACCAATC	120
CAGCAATGTA TTTGATGCCA GTTCAGGTGA TTTGTTTGAA CGCAGTAAAG CTCGCGGTTT	180
TGAAGCTGTA ATGCAGCGTT TGACAGGGAT TTTAGTCTTT TTCTGGCTAG CCATTGCCTT	240
AGCATTGACG GTATTATCAA GTAGATAAGA AAATAATGGG CAGGACTAGG TCTTTGCCTC	300
TTTTTATTTT TAAAGGATGT TTGAGAAGGT TTTACAGTAA AAGAAAATTA AAAAATCTAG	360
AAAGAAAATA TGAAAGATAG AATAAAAGAA TATTTACAAG ACAAGGGAAA GGTGACTGTT	420
AATGATTTGG CTCAGGCTTT GGGAAAAGAC AGTTCCAAGG ATTTTCGTGA GTTGATTAAA	480
ACCTTGTCTT TAATGGAAAG AAAGCACCAA ATTCGTTTTG AAGAAGATGG TAGTCTGACA	540
TTAGAAATTA AGAAAAACA TGAGATTACC CTCAAGGGGA TTTTTCATGC CCATAAAAAT	600
GGCTTTGGCT TTGTTAGTCT GGAAGGCGAG GAGGACGACC TTTTGTAGG GAAAAATGAT	660
GTCAACTATG CTATTGATGG TGATACCGTC GAGGTAGTGA TTAAGAAAGT CGCTGACCGC	720
AATAAGGGAA CAGCAGCAGA AGCCAAAATT ATTGATATCC TAGAACACAG TTTGACAACA	780
GTTGTCGGGC AAATCGTTCT GGATCAGGAA AAACCTAAGT ATGCTGGCTA TATTCGTTCA	840
AAAAATCAGA AAATCAGTCA ACCGATTTAT GTTAAGAAAC CAGCCCTAAA ATTAGAAGGA	900
ACAGAAGTTC TCAAAGTCTT TATCGATAAA TACCCAAGCA AGAAACATGA TTTCTTTGTC	960
GCGAGTGTTT TCGATGTAGT GGGACACTCA ACGGATGTCG GAATTGATGT TCTTGAGGTC	1020
TTGGAATCAA TGGACATTGT ATCCGAGTTT CCAGAAGCTG TTGTTAAGGA AGCAGAAAGT	1080
GTGCCTGATG CTCCGTCTCA AAAGGATATG GAAGGTCGTC TGGATCTAAG AGATGAAATT	1140
ACCTTTACCA TTGACGGTGC GGATGCCAAG GACTTGGACG ATGCAGTGCA TATCAAGGCT	1200
CTGAAAAATG GCAATCTGGA GTTTGGGGTT CACATCGCAG ATGTTTCTTA TTATGTGACC	1260
GAGGGGTCTG CCCTTGACAA GGAAGCCCTT AACCGTGCGA CTTCTGTTTA CGTGACAGAC	1320
CGAGTGGTGC CAATGCTTCC AGAACGACTA TCAAATGGCA TCTGCTCTCT CAATCCCCAA	1380
GTTGACCGCC TGACCCAGTC TGCTATTATG GAGATTGATA AACATGGTCG TGTGGTCAAC	1440
TATACCATTA CACAAACAGT TATCAAGACC AGTTTTCGTA TGACCTATAG CGATGTCAAT	1500

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GATATCCTAG	CTGGCGATGA	AGAAAAGAGA	AAAGAATATC	ATAAAATTGT	ATCAAGTATC	1560
GAATCATGG	CCAAGCTTCA	TGAAACTTTA	GAAAACATGC	GTGTGAAACG	TGGAGCTCTC	1620
AATTTTGATA	CCAATGAAGC	GAAGATTTTA	GTGGATAAAC	AAGGTAAGCC	TGTTGATATC	1680
GTTCTTCGGC	AGCGTGGTAT	TGCCGAGCGG	ATGATTGAGT	CTTTTATGTT	GATGGCTAAT	1740
GAAACAGTTG	CCGAACATTT	CAGCAAGTTG	GATTTGCCTT	TTATCTATCG	AATTCACGAG	1800
GAGCCTAAGG	CTGAAAAGGT	TCAGAAGTTT	ATTGATTATG	CTTCGAGTTT	TGGCTTGCGC	1860
ATTTATGGAA	CTGCCAGTGA	GATTAGTCAG	GAGGCACTTC	AAGACATCAT	GCGTGCTGTT	1920
GAGGGAGAAC	CTTATGCAGA	TGTATTGTCC	ATGATGCTTC	TTGCTCTAT	GCAGCAGGCT	1980
CGTTATTCGG	AGCACAATCA	CGGCCACTAT	GGACTAGCTG	CTGACTATTA	TACTCACTTT	2040
ACCAGTCCAA	TTCGTCGTTA	TCCAGACCTT	CTTGTCACC	GTATGATTTCG	GGATTACGGC	2100
CGTTCTAAGG	AAATAGCAGA	GCATTTTGAA	CAAGTGATTC	CAGAGATTGC	GACCCAGTCT	2160
TCCAACCGTG	AACGTCGTGC	CATAGAAGCT	GAGCGTGAAG	TCGAAGCCAT	GAAAAAGGCT	2220
GAGTATATGG	AAGAATACGT	GGGTGAAGAG	TATGATGCAG	TTGTATCAAG	TATTGTCAAA	2280
TTCGGTCTCT	TTGTCGAATT	GCCAAACACA	GTTGAAGGCT	TGATTCACAT	CACTAATCTG	2340
CCTGAATTTT	ATCATTTCAA	TGAGCGTGAT	TTGACTCTTC	GTGGAGAAAA	ATCAGGTATC	2400
ACTTTCCGAG	TGGGTCAGCA	GATCCGTATC	CGTGTTGAAA	GAGCGGATAA	AATGACTGGA	2460
GAGATTGATT	TTTCATTCGT	ACCTAGTGAG	TTTGATGTGA	TTGAAAAAGG	CTTGAAACAG	2520
TCTAGTCGTA	GTGGCAGAGG	GCGTGATTCA	AATCGTCGTT	CGGATAAGAA	GGAAGACAAG	2580
AGAAAATCAG	GACGCTCAAA	TGATAAGCGT	AAGCATTCAC	AAAAAGACAA	GAAGAAAAAA	2640
GGAAAGAAAC	CTTTTTACAA	GGAAGTAGCT	AAGAAAGGAG	CCAAGCATGG	CAAAGGGCGA	2700
GGGAAAGGTC	GTCGCACAAA	ATAAAAAGGC	ACGCCACGAC	TATACAATCG	TAGATACGCT	2760
AGAGGCAGGG	ATGGTCCTGA	CTGGAAGTGA	AATCAAGAGT	GTACGAGCTG	CTCGAATTAA	2820
TCTCAAGGAT	GGCTTTGCTC	AAGTGAAAAA	TGGAGAAGTT	TGGCTGAGCA	ATGTTCATAT	2880
CGCGCCTTAC	GAAGAGGGCA	ATATCTGGAA	CCAGGAACCA	GAACGTCGTC	GTAAACTCCT	2940
GCTCCATAAA	AAGCAAATTC	AAAAATTGGA	ACAAGAGATC	AAAGGGACAG	GAATGACCTT	3000
AGTTCCCCTT	AAGGTCTATA	TAAAAGATGG	CTACGCTAAG	CTTCTTTTAG	GAATTGCCAA	3060
AGGGAAGCAT	GACTATGACA	AACGGGAGTC	TATCAAACGT	CGTGAGCAAA	ATCGAGATAT	3120
CGCGCGTGTG	ATGAAAGCTG	TTAATCAGCG	ATAAAAAGAG	GAATTGAAAA	TGGAAAAATT	3180
AGTTGCCTAT	AAACGCATGC	CTTTGTGGAA	TAAACAAACA	ATGCCTGAAG	CTGTTGAGCA	3240

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AAAGCACAAT	ACAAAAGTTG	GGACTTGGGG	GAAAATTACT	GTCTTGAAGG	GAGCTCTCAA	3300
GTTTATTGAA	TTGACAGAAG	AAGGGGAAGT	TCTAGCTGAA	CACCTCTTTG	AAGCAGGGGC	3360
AGACAATCCA	ATGGCCCAAC	CTCAAGCCTG	GCACCGAGTG	GAAGCTGCCA	CAGATGATGT	3420
GGAATGGTAC	TTGGAATTTT	ATTGTAAACC	TGAGGATTAT	TTTGCTAAAA	AATACAATAC	3480
CAATCCTGTT	CATTCAGAGG	TCCTAGAGGC	CATGCAGACA	GTGAAACAAG	GGAAAGCTTT	3540
GGATTTGGGT	TGTGGTCAGG	GGCGTAATTC	TCTTTTTCTA	GCCCAGCAAG	ATTTTGATGT	3600
GACGGCTGTA	GATCAAAATG	GACTAGCTCT	TGAAATCTTG	CAAAGCATTG	TGGAGCAGGA	3660
AGATTTGGAC	ATGCCTGTTG	GCCTTTACGA	TATCAATTCA	GCTAGCATTG	AACAAGAATA	3720
TGATTTTATC	GTTTCAACAG	TTGTTCTCAT	GTTTCTACAA	GCGGACCGCA	TTCCAGCTAT	3780
TATTCAAAAT	ATGCAGGAGA	AAACCAGTGT	TGGTGGTTAC	AACCTTATCG	TTTGTGCCAT	3840
GGACACGGAG	GATTATCCTT	GCTCGGTAA	CTTCCCATTC	ACCTTTAAAG	AAGGAGAACT	3900
GGCAGACTAT	TACAAGGATT	GGGAATTGGT	TAAGTACAAT	GAAAATCCAG	GCCATTTGCA	3960
CCGTCGCGAT	GAGAATGGCA	ATCGTATTCA	ACTACGCTTT	GCGACCTTAC	TAGCTAAGAA	4020
AATCAAGTAA	ACACACATGA	AGATTAGGAA	TTTTCTTGAT	CTTTTTTCTT	TTTTACGAAT	4080
GATATAGAAA	AGGAGGGAAT	TCATGTTTGT	TGCGAGAGAT	GCTAGGGGAG	AATTGGTAAA	4140
TGTGTTAGAG	GATAAACTTG	AGAAGCAAGC	ATACACCTGC	CCAGCTTG TG	GAGGCCAGCT	4200
CCATTTGCGT	CAAGGACCAA	GTGTACGGAC	GCATTTTGCC	CATAAATCCT	TAAAAGACTG	4260
TGATTTTTTC	TTTGAAAATG	AAAGTCCAGA	ACACCTGGCC	AATAAGGAAT	CCCTCTATCA	4320
CTGGTTGAAA	AAAGAGACAA	AGGTTCAATT	AGAGTACCCG	CTTTCAGAAC	TTAAACAGAT	4380
TGCGGATGTA	TTTGTAATG	GCAATCTAGC	TCTAGAAGTT	CAGTG TAGTC	CCTTGCC TCA	4440
GAAAGTCCTT	AAAGAGCGAA	GTGAGGGCTA	TCGTAGTCAG	GGTTACCAAG	TACTGTGGTT	4500
GCTGGGTCAA	AAACTGTGGC	TCAAGGAGCG	TTTGACTCGT	CTACAGCAAG	GTTTTCTTTA	4560
TTTCAGTCAA	AACATGGGCT	TTTATGTTTG	GGAATTAGAC	AAGGAAAAAC	AAGTTTTAAG	4620
ACTCAAAATAC	CTGATTTACC	AGGATCTCCG	CGGTAAACTC	CATTATCAAA	TCAAGGAATT	4680
TTCTATGGT	CAAGGTAGTT	TATTGGAAAT	ATTGCGTCTT	CCCTATAAGA	GACAAAAAAT	4740
ATCTCATTTT	ACAGTTTCTG	AGGACAAGGA	CATCTGTCGC	TATATCCGGC	AACAAC TTTA	4800
TTATCAAAAT	CTCTTTTGGA	TGAAAGAACA	AGCAGAAGCC	TATCAAAAGG	GAGAAAATAT	4860
CCTGACTTAT	GGACTGAAAG	AATGGTATCC	ACAAATTCGA	CCAATAGTGG	GCAAATTTTT	4920
CCAGATTGAA	CAAGACTTGA	CTAGCTATTA	TCAGCACTTT	TATACCTATT	ACCAAAAAAA	4980
TCCTCAAAAT	GATTGGCAAA	AGCTTTATCC	ACCAGCCTTT	TATCAGCAAT	ATTTCTTGAA	5040

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AAATATGGTA	GAATAGAAAG	GATGGAGGAA	TCTAATGGTA	TTACAAAGAA	ATGAAATAAA	5100
TGAAAAAGAT	ACATGGGATC	TATCAACGAT	CTACCCAACT	GACCAGGCTT	GGGAAGAAGC	5160
CTTAAAAGAT	TTAACAGAAC	AATTGGAGAC	AGTAGCCCAG	TATGAAGGCC	ATCTCTTGGA	5220
TAGTGCGGAT	AACCTACTAG	AAATCACTGA	ATTTTCTCTT	GAAATGGAAC	GCCAGATAGA	5280
GAAGCTTTAC	GCTTATGCTC	ATATGAAGAA	TGACCAGGAT	ACACGTGAAG	CTAAGTATCA	5340
AGAGTACTAT	GCCAAGGCCA	TGACACTCTA	CAGCCAGTTA	GACCAAGCCT	TTTCATTCTA	5400
TGAGCCTGAA	TTTATGGAGA	TTAGCGAAAA	GCAGTATGCT	GACTTTTTTAG	AAGCTCAACC	5460
AAAGCTGCAG	GTTTATCAAC	ACTATTTTGA	CAAGCTTTTG	CAAGGCAAGG	ATCACGTTCT	5520
TTCACAACGT	GAAGAAGAAT	TATTGGCTGG	AGCTGGAGAA	ATCTTTGGTT	CAGCAAGTGA	5580
AACCTTCGCT	ATCTTGGA	ATGCGGATAT	TGTGTTCCCT	TATGTCCTAG	ACGATGATGG	5640
TAAAGAAGTT	CAGCTATCTC	ATGGGACTTA	CACACGTTTG	ATGGAGTCTA	AAAAACGTGA	5700
GGTTCGCCGT	GGTGCCATC	AAGCTCTTTA	TGCGACTTAC	GAACAATTCC	AACACACCTA	5760
TGCCAAAACC	TTGCAAACCA	ATGTTAAGGT	GCAAAATTAC	CGTGCTAAAG	TTCGTAACCTA	5820
CAAGAGTGCT	CGTCATGCAG	CCCTCGCAGC	GAATTTTGTT	CCAGAAAGTG	TTTATGACAA	5880
TTTGGTAGCA	GCAGTTCGCA	AGCATTTGCC	ACTCTTACAT	CGCTATCTTG	AGCTTCGTTC	5940
AAAAATCTTG	GGGATTTTCAG	ATCTCAAGAT	GTACGATGTC	TACACACCGC	TTTCATCTGT	6000
TGAATACAGT	TTTACCTACC	AAGAAGCCTT	GAAAAAAGCA	GAAGATGCTT	TGGCAGTCTT	6060
GGGTGAGGAT	TACTTGAGCC	GTGTAAACG	TGCCTTCAGC	GAGCGTTGGA	TTGATGTTTA	6120
CGAAAATCAA	GGCAAGCGTT	CAGGTGCCTA	CTCTGGTGGT	TCTTATGATA	CCAATGCCTT	6180
TATGCTTCTC	AACTGGCAAG	ACAATCTGGA	CAATCTCTTT	ACTCTTGTTT	ATGAAACAGG	6240
TCACAGTATG	CATTCAAGCT	ATACTCGTGA	AACTCAGCCT	TATGTTTACG	GGGATTACTC	6300
TATCTTTTTG	GCTGAGATTG	CCTCAACTAC	CAATGAAAAT	ATCTTGACGG	AGAAATTATT	6360
GGAAGAAGTG	GAAGACGACG	CAACACGCTT	TGCTATTCTC	AATAACTTCC	TAGATGGTTT	6420
CCGTGGAACA	GTTTTCCGCC	AAACTCAATT	TGCTGAGTTT	GAACACGCCA	TTACCAAGC	6480
AGATCAAAAT	GGGGAGGTCT	TGACAAGCGA	TTTCCTAAAT	AAACTCTACG	CAGACTTGAA	6540
CCAAGAGTAT	TATGGTTTGA	GTAAGGAAGA	CAATCCTGAA	ATCCAATACG	AGTGGGCTCG	6600
CATTCCACAC	TTCTACTATA	ACTACTATGT	ATATCAATAT	TCAACTGGCT	TTGCGGCCGC	6660
CTCAGCCTTG	GCTGAAAAAA	TTGTCCATGG	TAGTCAAGAA	GACCGTGACC	GCTATATCGA	6720
CTACCTCAAG	GCAGGTAAGT	CGGACTATCC	ACTTAATGTC	ATGAGAAAAG	CTGGTGTTGA	6780



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TATGGAGAAG	GAAGACTACC	TCAACGATGC	CTTTGCAGTC	TTTGAACGCC	GTTTAAATGA	6840
GTTTGAAGCC	CTTGTTGAAA	AATTAGGATT	GGCATAAAAT	GGTTGAATCG	TATAGTAAGA	6900
ATGCTAACCA	TAACATGCGT	CGTCCTGTCG	TCAAAGAAGA	AATTGTAGAC	TTGATGCGTC	6960
AGCGTCAAAA	GCAGGTCACA	GGTTTCTTGA	AAGAATTGGA	AGACTTTGCC	CGCAAGGAAA	7020
ATATTCCTAT	TATTCCTCAT	GAAACGGTTG	CTTATTTCCG	TTTTCTTATG	GAAACCATGC	7080
AGCCTAAAAA	TATTCTGGAA	ATTGGGACGG	CTATCGGTTT	TTCAGCTCTC	TTGATGGCTG	7140
AACATGCGCC	AAATGCTAAG	ATTACAATA	TTGATCGTAA	TCCAGAAATG	ATTGGTTTTG	7200
CCAAGGAAAA	TTTTGCCCAG	TTTGACAGTC	GCAAGCAAAT	CACTCTCCTA	GAGGGAGATG	7260
CGGTGGATGT	CTTATCTACA	CTGACAGAGT	CTTATGATTT	CGTCTTTATG	GATTCTGCCA	7320
AGTCTAAATA	CATCGTCTTT	CTGCCAGAAA	TCCTCAAACA	TTTGGAAAGT	GGTGGTGTGG	7380
TTGTCTTGGA	TGATATTTTT	CAAGGTGGTG	ATGTTGCCAA	GGATATTATG	GAAGTCCGTC	7440
GTGGTCAGCG	AACCATTTAT	CGAGGCCTTC	AAAAATTATT	TGATGCAACC	TTAGACAATC	7500
CAGAACTCAC	CGCAACATTA	GTGCCTTTAG	GAGATGGTAT	TCTCATGCTT	CGTAAAAATG	7560
TAGCAGATGT	TCAACTGTCT	GAAAGCGAAT	GATTTTCAGA	AAAATTTAAG	AAAAAATAGT	7620
AAAATAGATA	GAGTAACACT	TATCTCAAAG	GAGTAGACAT	GAAGAAAAAA	TTATTGGCAG	7680
GTGCCATCAC	ACTATTATCA	GTAGCAACTT	TAGCAGCTTG	TTCGAAAGGG	TCAGAAGGTG	7740
CAGACCTTAT	CAGCATGAAA	GGGGATGTCA	TTACAGAACA	TCAATTTTAT	GAGCAAGTGA	7800
AAAGCAACCC	TTCAGCCCAA	CAAGTCTTGT	TAAATATGAC	CATCCAAAAA	GTTTTTGAAA	7860
AACAATATGG	CTCAGAGCTT	GATGATAAAG	AGGTTGATGA	TACTATTGCC	GAAGAAAAAA	7920
AACAATATGG	CGAAAACTAC	CAACGTGTCT	TGTCACAAGC	AGGTATGACT	CTTGAAACAC	7980
GTAAAGCTCA	AATTCGTACA	AGTAAATTAG	TTGAGTTGGC	AGTTAAGAAG	GTAGCAGAAG	8040
CTGAATTGAC	AGATGAAGCC	TATAAGAAAG	CCTTTGATGA	GTACACTCCA	GATGTAACGG	8100
CTCAAATCAT	CCGTCTTAAT	AATGAAGATA	AGGCCAAAGA	AGTTCTCGAA	AAAGCCAAGG	8160
CAGAAGGTGC	TGATTTTGCT	CAATTAGCCA	AAGATAATTC	AACTGATGAA	AAAACAAAAG	8220
AAAATGGTGG	AGAAATTACC	TTTGATTCTG	CTTCAACAGA	AGTACCTGAG	CAAGTCAAAA	8280
AAGCCGCTTT	CGCTTTAGAT	GTGGATGGTG	TTTCTGATGT	GATTACAGCA	ACTGGCACAC	8340
AAGCCTACAG	TAGCCAATAT	TACATTGTAA	AACTCACTAA	GAAAACAGAA	AAATCATCTA	8400
ATATTGATGA	CTACAAAGAA	AAATTAAAAA	CTGTTATCTT	GACTCAAAAA	CAAAATGATT	8460
CAACATTTGT	TCAAAGCATT	ATCGGAAAAG	AATTGCAAGC	AGCCAATATC	AAGGTTAAGG	8520
ACCAAGCCTT	CCAAAATATC	TTTACCCAAT	ATATCGGTGG	TGGAGATTCA	AGCTCAAGCA	8580

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GTAGTACATC	AAACGAATAG	TCCAAATCAA	TGAGTCAGGG	AAAAAACTCG	ACTTCAGGAA	8640
AAAATGAAGC	AAACATTCCC	ACAATAAAAC	GCATAGTACA	AGGTTTGTAC	TGCCCCCCAA	8700
AAAGTTAGAC	AATTAATTTA	TCCGAAGGAT	TTAGTTCTGT	ATTGCACAGA	GCTAAGTCCT	8760
TTTAGTTTTA	TCTTAATTCT	CTTATTGTTG	TAATAATCAA	TATAGTCTAT	AATGGCTCGT	8820
TCCAATTGAT	TAAGTGATTT	AAATGTTTTC	TCATAGCCAT	AAAACATTTT	GGATTTTAAA	8880
ATGCCAAAGA	AAGATTCCAT	CCTACCGTTG	TCTTGGCTGT	TGCCCTTACG	TGACATGGAT	8940
GCTTGAATTC	CCTTACTCTC	TAGGAAGCGA	TGATAAGAAT	CGTGTTGATA	TTGCCAGCCT	9000
TGGTCACTAT	GGAGAATCGT	ATTCTCGTAG	TGCTTCTCTT	TGAATGCCTG	TTCCAACATT	9060
AACGATCAAT	CAATTTAATC	ATGTACCTAA	GATTAGAATT	GTTTATCCCA	AATTTATTTG	9120
AAAGCTTCTC	TAAGCTATAT	CCTTGTTTTT	TAAGTTCATA	GATCTGAACT	TTATCATCAT	9180
AAGTTAATTT	CATAATAAAA	ACACCCCAAA	AGTTAGATTT	TTTCTGTCTA	ACTTTTGGGG	9240
TGTAGTTCAT	GTACACCTGA	TATGATGCGT	TTTATAATTT	TAAAGACTTT	TTGACCAGCC	9300
TCATTTTTTT	AACTTGATAC	TCAGTGAAAA	GCAAAGATTA	AACTAGGAAG	CTAGCTGTAG	9360
GCTGCTCAAA	GAACAGCTTT	GAGGTTGTAG	ATAAACTTG	TGAGGTCACC	AACATATATA	9420
ATGTGAAGCT	GACGTGGTTT	GAATAGATTT	TAGAAGAGTA	TGAGTCTGGA	AGTTTTAATG	9480
GATAATGCAA	GATTCCATAG	AATGGGTAAG	CTAGAGTTCT	TATGTGAAGA	GTTTGGGCAT	9540
AACTTTTAC	CTTTTCCTCC	CTACTCATCT	TAGTATAGAA	AAGTGAATCT	GAAATAGTAC	9600
ATAACTGCTT	CTAAAACATT	CTTATAAATT	GATTTAAATT	CTCAAATCAT	ATTATTCAGT	9660
TCTTATTTCA	TTTTGTCTA	CAATCCTGTT	GAGAAGACAC	GTGTTTCATAT	CAAAAAGGTA	9720
TTGGCAAGTT	GCAATACCTT	TTTACGAGGC	TCTGTTGTCT	TATTTTTGTT	TCAACTGACT	9780
ATATCTCCTA	TGGTTCTAGT	TCAGAAGGCT	AGGCTATAAT	TATGATTGAT	AAGAAGTATC	9840
ATTCCAAGTA	TTGGGAGTGA	ATGTTTCAAA	ATCATGGGTT	TCTATAATGG	TCAGGCTGGC	9900
ATTTGCTAGA	CCGCCATCTT	TACGAAGAAG	TGGTTCTTTA	TAGCCTAGGA	GAGTACGAAG	9960
ACTGGCAGTA	AGATTGGCGC	CGTGTCGGAC	AATTAGAATA	CGTTCAGCTG	GACTATCTTT	10020
TAATGATTTG	ATAAATTGGA	TGGTCCGTTG	AGTTGTACTA	TAGAGGGATT	CGGCTCCGAA	10080
CATTCGAGTG	TCAAATTGAG	CAAGATTTGA	ACGAAAAGCC	TGGATTTGTT	GCGGGTAAAT	10140
AGCTTCCAAG	GTTGCAATTT	TCAAACCTTC	TAAC TTCCCA	AGTTGCCATT	CACGGAGATT	10200
AGGAACGATT	TCTAAAGAAC	AGGGGGTATA	GAGTTGACTT	TGGATAATCT	CAGCAGATTT	10260
GACCGCTCGA	GGTAAATCAC	TTGAATAAAT	CTGATCAAAA	GGAATTTCTT	TGAGATACTG	10320

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ACCAAGTCGT TTTAGGGTTT CAATGGATTC AGGAAGAAGA GGAGAATCAC CACTAGCACC	10380
TTGAAAACGA CCTTCTTGGT TCCAGAGGGT ACGACCGTGG CGGACAAAGT AGAGTTTCAT	10440
TACTTGATGT CCTCCAAAAT ATCTACAAAG TCTGCCTTTA CAAAGCTAGC CAAGTCTTGT	10500
GGCGCGACGA TAATGCTGTG TCCGACTTCG CCTGCAGAGA CAATCATTTG ATCCAAATCT	10560
AGAGCAATTT TATCGATAAA AATGGGATAA TTGTGTTTCT GACGAATTCC GACAGGATTA	10620
TTGGCTCCAT GAATGTAACC AGTTGTTTTT TCTAAGTCCT TTTGTGGAAT CATGCTCACT	10680
TTTTTATTGC CAGAAATTTT AGCTAGTTTC TTTTCAGACA AGTGCTGAGT GATAGGGACA	10740
ATTCCGATAA TCGGTCCGGT CTTGTCTCCC AAAAGCGCCA AGGTTTTGAA AATCTGATCT	10800
CGTTCATAAC CTTGAGGAAG CTCTCCTTCT AGGGCATTGA TTTGAATCCC CTGATGAGGG	10860
ATAGCTGCTT TAGATAGGAT TTGTTCCACC AATGTTTTTT TGATTTTAAC TTTTTTTGCC	10920
ATTATTTATA TTTATCCTCC AATTGACTCA TCCAAATACC AAGCCAGATT CCCAGCGCAA	10980
AGAAGAAGGC GATGATGACA TAACCGACAA GTGAAAGTCC TGTGTATTGG ATACTTTCAG	11040
CGTTTCCTGC ATTTGGAATT AAGATCAAAA GGTACTTGA TAGGACGATA CCGATGATGA	11100
AATGATAGAC GAACTGTTTA CGGAGTTCTT CTAGTTCTCC GTCCGTCCAA GCGTAGGCCA	11160
CTTCTTCTTT CTTGCCTTTA CCTTTGGACA TCTTGTAAG AGGTGGGAGG GCAATATAGA	11220
CATGACCTGC CTCGACTAGC GGACGCATGT AACGGTAGAA AAATGTCAAG AGCAAGGTCT	11280
GGATATGGGC ACCGTCGGTA TCCGCATCG	11309

## (2) INFORMATION FOR SEQ ID NO: 109:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5548 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 109:

CCATAGTCTA ACAAGTCTTT GTAAAGGTTT ATCCCTGATT CATGTAAAGA TTGTGTAAAG	60
AATCAAAAAA AGCCACTTTT GAAAAATGGC TGCTCCTAAA AATAGCTTTA AAAATTATTA	120
GTCCTGTGCG AAAGATTGGT TAGGAAGAAA AATCGTGAAG CAACTGCCTC TGCCAAGCTG	180
ACTCGTCACC GTGACTTGGC CACCTAATAA TTGACTGAGT TCTTTGACAA TGGCAAGGCC	240
AAGACCAGTG CCACCAGTTT GTCTGCTTCG ACCTTTATTA ACTCGGTAAA AACGTTCAAA	300
AATACGATCC TGCTCTAATT GACTAATACC AATCCCTGTA TCTGATACAG AAATCTTAAT	360
GCCTTCGTTT ACCTTTTGGG TCTTGACCTC AATTTTTCCT CCTTGTTTCA TGTAACGGAT	420

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GGCATTGGAT	AAAAGATTGA	GTAAGATTTG	GGAAAGTAAT	TGACTATCTG	ATACGAGGGT	480
GACATCATCT	GGCACCTGCA	CCTTTAGCTG	TAAATCCTTC	TTCTTGAGCT	GAGGTTGCAA	540
GCTTTGAGTC	AAATCCTGTA	CAAATTCTGC	CAAAGAAAGG	GTCGTCCATT	GTATAGGCAT	600
TTGTTGAGCC	TTAGATAAGG	TAAGAAGATG	CTCAACAATA	TGCTCAAGAC	GCAAACCTTC	660
TTTGTAATA	ATGTCTAGAA	AGTCATCCTT	GAGCGCTTCT	TCTTCAGCTG	ACATCCCCCTT	720
AATGGTTTCA	GCAAAGCCCT	TAATCGAAGT	AACTGGTGTC	CTCAATTCAT	GGGAGGCATT	780
TGAGACAAAG	GCTAAATTTA	ACTTTTCATA	AGTTCTAATC	GTTGTTAAAT	CATATAGCAA	840
GACGAGCACA	GCTTCCACAG	ATTGGGTGGG	GCTAAAAACG	GGAAC TGCTG	TCACTTCTAA	900
AATCAAGTCA	CCCTCATGAA	ACCCACTTAC	TTCTTGTTTT	AACCTTGTTT	TTTGATCAAA	960
GGCTTGGTGA	ACTAAATTCC	GAATATCCAT	CCGTTTGAGG	TCATCAAGTG	AACTTATGTC	1020
GCCGTCCACA	TCGGGAAAAT	AATGAGGCAG	AGAGCGACTG	GATAATAACA	TCTGACCTTG	1080
AGCGGAAACT	AAAAACGTCC	CCATGGTTAG	GTGCGACAGA	AGAACCTCCA	TTGTTTCGGC	1140
TAGATCCTTG	TATTGCTGAT	CCTGTTGGGA	GACTTTGGTT	TTTAGGCCAG	ACACATACTG	1200
AGCCAAAGAC	TTTAAGTCTT	CTTGCCCTTT	TTCTAAAAAG	TATTCACTAC	TGGTCAAGAG	1260
AGGTTGGTGC	AAGGTCTCAA	AAGCAACTTC	CCATTTCCAA	AGGCAAAAGA	GCCAGTAGCC	1320
ACCTAGTCCC	AAAGAAAGGG	CTAGAAGAAA	GAGACCGATG	CCTTTACTGA	TCCAAGTTAA	1380
TGCCATCCCT	GCAATCAGAA	TGAGGCTAAC	ACTTAGATTG	ACTAGCCAAA	ATTGAAGGTA	1440
GCGTTTCATC	TATAACTCCT	TGAAC TTATA	ACCATAACCC	CGAATGGTTC	GAATAAATTG	1500
AGGGGCTTTA	GGATTGTCTT	CAATTTTTTTC	CCTCAACTTA	CCAATATGAA	CGTCCACCAA	1560
ACGTGTTTCC	TGCCCCAAGT	CATACCCCCA	GATACGTTCC	AAAAGACGCT	CTCTAGTCAG	1620
TGTCATGTTG	GGATGTTTCA	TAAGATAGAG	CAAGAGTTCA	AATTCCTTTG	GGGTCAAACCT	1680
CAGTAACTTA	TTCGCCTTGT	AGACTTCATG	ACGCTCAGGG	TATACTTTCA	AGGTCCCAAA	1740
TAGCCAAGAA	TCGTCAGCGA	TATTATCTGA	ATCATCTCCT	TCTTGTTCTC	CTTTAGTTTCG	1800
CCTGAGGACA	GCCTTGACAC	GCGCCAGCAA	TTCTCTAGGG	CTAAAAGGCT	TGGTCAGGTA	1860
GTCATCAGCC	CCTAATTCCA	AGGCCAAAAC	CTTATCAAAT	TCATCACTTT	TCGCAGAAAC	1920
CATCATAATT	GGAGTTTTGA	CGCCTTTGGC	TCTCAGCCGC	TTACAAACTT	CCATGCCATC	1980
TAATTGTGGT	AACATGATAT	CAAGCAAGAT	AAAATCAAAG	GGTTC TGTTT	CTGCCAAAGC	2040
TAAGGCCTTC	CGTCCATTTG	TCACCAATTG	AGTAGAAAAG	CCTTCCTTAC	TTAAATGGTA	2100
GTCAAGCAAT	TTCAGAATGT	GTTCTTCATC	ATCCACTAAT	AAGACTTGTT	TTGTCATCTA	2160



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TTATCTCCTA	TTGGTAACAT	TATAACACAA	TTATCAGAAA	TCCTAACATT	GCTAAATCAG	2220
ATTAAATTTG	CCTATCAAGA	CTAGTATCTG	GTCAAACGCT	CAATCATCTC	CTTGTGCTCT	2280
GGATAGGTCG	CCAGTAGATC	TACCCTTTCA	AATAATTCAA	AATCCTCAAA	TTCAAAACCA	2340
GGAGCAACAA	GACAAGAAAC	CAGAGCATCA	TCCTTATCAA	CTGTTGATCC	CCAAATAGTG	2400
CCCTTAGGAA	CACAGTAGTG	AAGTTGTTGC	CCTTTGGATA	TGTCCAGGCC	TAAAGTGACT	2460
GCTTCGTAGT	GACCATCTGC	TGTAATCATG	TGAACAGTAA	GTGGGGATCC	TGCATGAAAA	2520
TACCAGATTT	CATCTGCTGT	CAATCGGTGA	AAATGTGAAG	GATTCGTTTC	TTCTAATAAG	2580
AAATAAATAC	TGGTATAAAG	CGCCCTTCCC	TTACCAGCAA	GGTTTATAGT	GTCTGAAGCT	2640
TTTTTTGTTT	GTCTAAAATA	GCCACCTTCA	ATATGGGGAG	CTAACTCTAG	AGTTCTTATC	2700
AAGTCTTCTT	TATCCGTCGG	AGCCAATGGG	TTGAAGTAAC	TCTTGTTCAA	AGTGGTTTTA	2760
CGATTTCAAG	AACTCCTCTC	AGTTCTGAGG	ACACGGTAAT	GATTGATGCG	ACGGAAGTAC	2820
AAATCAATCG	CCCTAAAAAA	AGAATTAGCG	AATGATTCTG	GTAAAAAAA	TGCCACGCTA	2880
TGAAGGCTCA	AGCGATTGTC	ACAAGTCAAG	GGAGAATTGT	TTCTTTGGAT	ATCGCTGTGA	2940
ACTATTGTCA	TGATATGAAG	TTGTTCAAAA	TGAGTCGCAG	AAATATCGGA	CAAGCTGGTA	3000
AAATCTTGGC	TGACAGTGGT	TATCAAGGGC	TCATGAAGAT	ATATCCTCAA	GCACAAACTC	3060
CACGTAAATC	CAGCAAACCTC	AAGCCACTAA	CAGTTGAAGA	TAAAGCCTAT	AACCATGCGC	3120
TATCCAAGGA	GAGAAGCAAG	GTTGAGAACA	TCTTTGCCAA	AGTAAAAACG	TTTAAAATGA	3180
TTTCAACAAC	CTATCGAAAT	CATCGTAAAC	ACTTCGGATT	ACGAATGAAT	TTGATTGCTG	3240
GCATTATCAA	TCATGAACTA	GGATTCTAGT	TTTGCAGGAA	GTCTATTATT	TGGTTAGGTG	3300
AATTAGTGAA	GCGTTTAGGC	AAGTGTCTCT	GGTTACGACG	TCATGGACTC	TAAATCGATT	3360
ATATTTAGGG	GTCATGACTA	GTGAAGCAGT	TAGCTAGTTC	GCATATAAGC	GGCTAGCGTC	3420
TAACAATTAG	GAACCTTAGT	TCCAATAACT	TTAAGATTAC	GACGTTTTAG	GACATAAATC	3480
GATCATATTT	ATGTCCTAAA	ACTAGTGAAG	CGCCTAGCCA	AAGTCCGAAT	AGGATTTGGC	3540
GTTAGTACT	TAGATTGCTT	TGCAATCAAG	TAACTTTGGC	GATTTACATC	TTCTCTGGCG	3600
CTTCTACTCC	AAGCAAGCGA	AGGGCTTCTT	TGAGAACGAC	TGCGGTTGCG	TAGCTGAGGG	3660
CTAGACGGCT	GTCGCGTTCT	GGGCTTTCAT	CCAAGATACG	TGTATGTGCA	TAGTATTTGT	3720
TAAAGGATTG	AGCCAGGCTA	ATTGCAAATT	TAGCAATGAT	AGAAGGTTCA	AAGTTATCTG	3780
CCGCACGGTT	GATAATACGT	GGGAAGTCTT	GAATGAGTTT	AATGATTTCC	CAGCTTTCAG	3840
TATCATTCOA	GCTATAGTTG	CCAGCTGTTT	CTGGTTTGAA	ATCGGCTTTG	CGTAAGATAG	3900
ATTGGATACG	AGCGTAGGCA	TATTGAACGT	AAGGTCCAGT	TTCACCCTCG	AAGGATACCA	3960

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TAGCCTCTAG	GTCGAAGTCG	TATCCATTTG	TACGGTCGGT	TTTGAGGTCA	TAGAATTTAA	4020
TGGCTCCAAT	CCCAACAGCA	TGTGCTACTT	GGTCTTTGTT	TTCTAGTTCA	GGATTTT TAG	4080
CCTCGATTTG	GACCTTGGCA	CGGCTAACAG	CCTCTGCAAC	AGTAGGCTCT	AGCAAGATGA	4140
CATTCCCTTT	ACGAGTAGAG	AGTTTCTTCC	CTTCTTTTGT	AACCAAACCA	AAAGGAACGT	4200
GAGTAATGTC	GTCACTCCAG	TCGTAGCCCA	TCTCTTGCAA	GACAGCTTTG	AGCTGTTTAA	4260
AGTGGGCAGA	TTGTTCTTGA	CCAACGACAT	AGATAGATTT	AGCAAATTGG	TATTCGTTTT	4320
TACGGTAGAG	GGCTGCAGCC	AAGTCACGTG	TGATATAGAG	AGTTGCACCA	TCAGACTTCT	4380
TGATGAGGGC	TGGATGTTCA	ATTCCATATT	TCTCAAGATT	CACAACTTGG	GCACCTTCTG	4440
ATTCAAGAAG	TAGTCCTTTT	TCAGAAAGAA	TGTCTACAAC	TGCATCCATC	TTATCATTGT	4500
AGAAGGCTTC	TCCGTTATAG	CTGTCAAATT	CAACCTTCAA	TTCATTGTAA	AGGCGGTTAA	4560
ATTCCACTAA	ACTTTCATCG	CGGAACCATT	GCCAAAGAGC	GAGAGCTTCC	TCATCTCCAT	4620
TTTCAAGTTT	ACGGAACCAT	TCGCGCGCTT	CTTCATCCAA	GCTAGGGTCA	TTTTCAGCTT	4680
CAGCGTTGAT	GCGGACATAG	AGTTTAAGGA	GTTTCATCGAT	TGGATGAGCT	TTTACAGCTT	4740
CTTCGTCGCC	CCATTTTTTTG	TAGGCAACAA	TCAACATCCC	AAATTGTTTA	CCCCAGTCTC	4800
CCAAATGGTT	GACCTTGACC	GTTTGATAAC	CGATTTTTTTG	GAAAATATGT	GACAAGCTAT	4860
CTCCGATAAC	AGTTGAACGC	AGGTGGCCAA	TAGAAAATGG	TTTAGCGATA	TTCGGACTAG	4920
ACATGTCGAT	AACAACATTT	TCTTGTTTAC	CAATATTTTG	GTCAGCATAG	TGTTCTTTTT	4980
CAGTGGTAAC	AGCTTGCAAT	ACTTGAGCAG	AAATGGCAGA	TTTATCAAGG	AAAAAGTTAA	5040
CGTAAGGTCC	TGTTGCGACA	ACTTTTTTCAA	AGGCTTGGCT	GTTCATTTTT	TCAGCCAGTT	5100
CAGCCGCAAT	CATTTGTGGT	GCTTTACGTT	CGACTTTTGC	AAGAGAAAAA	GCAGGGAAAG	5160
CAATGTCTCC	CATTTCTGAG	TTTTTAGGGG	TTTCCAGTAA	CTTTAAAATA	GCCTCTTGGT	5220
CCAGGCTATC	AATGATGCTA	GATAATTCGC	TAGCAATCAA	TTCTTTTGTA	TTCATTAAGA	5280
GCTCCTTTTT	GGACTTTTCT	ACTATTTTAT	CACAATTTTA	AAGAAAGAAG	AAAAAATTTT	5340
TGAAATCTCC	TGTTTTTTTG	GTATAATATG	GTTATAAATA	TAGTTATAAA	TATGCACGCA	5400
AGAGGATTTT	ATGAGAAAAA	GAGATCGTCA	TCAGTTAATA	AAAAAAATGA	T TACTGAGGA	5460
GAAATTAAGT	ACACAAAAAG	AAATTCAAGA	TCGGTTGGAG	GCGCACAAATG	TTTGTGTGAC	5520
GCAGACAACC	TTGTCTCGTG	ATTTGCGG				5548

(2) INFORMATION FOR SEQ ID NO: 110:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 3132 base pairs

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(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 110:

TACCCGGTAG	TCTTAGCAGA	CACATCTAGC	TCTGAAGATG	CTTTAAACAT	CTCTGATAAA	60
GAAAAAGTAG	CAGAAAATAA	AGAGAAACAT	GAAAATATCC	ATAGTGCTAT	GGAAACTTCA	120
CAGGATTTTA	AAGAGAAGAA	AACAGCAGTC	ATTAAGGAAA	AAGAAGTTGT	TAGTAAAAAT	180
CCTGTGATAG	ACAATAACAC	TAGCAATGAA	GAAGCAAAAA	TCAAAGAAGA	AAATTCCAAT	240
AAATCCCAAG	GAGATTATAC	GGACTCATTT	GTGAATAAAA	ACACAGAAAA	TCCCAAAAAA	300
GAAGATAAAG	TTGTCTATAT	TGCTGAATTT	AAAGATAAAG	AATCTGGAGA	AAAAGCAATC	360
AAGGAACTAT	CCAGTCTTAA	GAATACAAAA	GTTTTATATA	CTTATGATAG	AATTTTAAAC	420
GGTAGTGCCA	TAGAAACAAC	TCCAGATAAC	TTGGACAAAA	TTAAACAAAT	AGAAGGTATT	480
TCATCGGTTG	AAAGGGCACA	AAAAGTCCAA	CCCATGATGA	ATCATGCCAG	AAAGGAAATT	540
GGAGTTGAGG	AAGCTATTGA	TTACCTAAAG	TCTATCAATG	CTCCGTTTGG	GAAAAATTTT	600
GATGGTAGAG	GTATGGTCAT	TTCAAATATC	GATACTGGAA	CAGATTATAG	ACATAAGGCT	660
ATGAGAATCG	ATGATGATGC	CAAAGCCTCA	ATGAGATTTA	AAAAAGAAGA	CTTAAAAGGC	720
ACTGATAAAA	ATTATTGGTT	GAGTGATAAA	ATCCCTCATG	CGTTCAATTA	TTATAATGGT	780
GGCAAAATCA	CTGTAGAAAA	ATATGATGAT	GGAAGGGATT	ATTTTGACCC	ACATGGGATG	840
CATATTGCAG	GGATTCTTGC	TGGAAATGAT	ACTGAACAAG	ACATCAAAAA	CTTTAACGGC	900
ATAGATGGAA	TTGCACCTAA	TGCACAAATT	TTCTCTTACA	AAATGTATTC	TGACGCAGGA	960
TCTGGGTTTG	CGGGTGATGA	AACAATGTTT	CATGCTATTG	AAGATTCTAT	CAAACACAAC	1020
GTTGATGTTG	TTTCGGTATC	ATCTGGTTTT	ACAGGAACAG	GTCTTGTAGG	TGAGAAATAT	1080
TGGCAAGCTA	TTCGGGCATT	AAGAAAAGCA	GGCATTCCAA	TGGTTGTCGC	TACGGGTAAC	1140
TATGCGACTT	CTGCTTCAAG	TTCTTCATGG	GATTTAGTAG	CAAATAATCA	TCTGAAAATG	1200
ACCGACACTG	GAAATGTAAC	ACGAACTGCA	GCACATGAAG	ATGCGATAGC	GGTCGCTTCT	1260
GCTAAAAATC	AAACAGTTGA	GTTTGATAAA	GTTAACATAG	GTGGAGAAAG	TTTTAAATAC	1320
AGAAATATAG	GGGCCTTTTT	CGATAAGAGT	AAAATCACAA	CAAATGAAGA	TGGAACAAAA	1380
GCTCCTAGTA	AATTAAAATT	TGTATATATA	GGCAAGGGGC	AAGACCAAGA	TTTGATAGGT	1440
TTGGATCTTA	GGGGCAAAAT	TGCAGTAATG	GATAGAATTT	ATACAAAGGA	TTTAAAAAAT	1500
GCTTTTAAAA	AAGCTATGGA	TAAGGGTGCA	CGCGCCATTA	TGGTTGTAAA	TACTGTAAAT	1560

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TACTACAATA GAGATAATTG GACAGAGCTT CCAGCTATGG GATATGAAGC GGATGAAGGT	1620
ACTAAAAGTC AAGTGTTTTTC AATTTTCAGGA GATGATGGTG TAAAGCTATG GAACATGATT	1680
AATCCTGATA AAAAACTGA AGTCAAAAGA AATAATAAAG AAGATTTTAA AGATAAATTG	1740
GAGCAATACT ATCCAATTGA TATGGAAAGT TTTAATTCCA ACAAACCGAA TGTAGGTGAC	1800
GAAAAAGAGA TTGACTTTAA GTTTGCACCT GACACAGACA AAGAACTCTA TAAAGAAGAT	1860
ATCATCGTTC CAGCAGGATC TACATCTTGG GGGCCAAGAA TAGATTTACT TTTAAAACCC	1920
GATGTTTCAG CACCTGGTAA AAATATTAAA TCCACGCTTA ATGTTATTAA TGGCAAATCA	1980
ACTTATGGCT ATATGTCAGG AACTAGTATG GCGACTCCAA TCGTGGCAGC TTCTACTGTT	2040
TTGATTAGAC CGAAATTAAA GGAAATGCTT GAAAGACCTG TATTGAAAAA TCTTAAGGGA	2100
GATGACAAAA TAGATCTTAC AAGTCTTACA AAAATTGCCC TACAAAATAC TGCGCGACCT	2160
ATGATGGATG CAACTTCTTG GAAAGAAAAA AGTCAATACT TTGCATCACC TAGACAACAG	2220
GGAGCAGGCC TAATTAATGT GGCCAATGCT TTGAGAAATG AAGTTGTAGC AACTTTCAAA	2280
AACACTGATT CTAAAGGTTT GGTAAACTCA TATGGTTCCA TTTCTCTTAA AGAAATAAAA	2340
GGTGATAAAA AATACTTTAC AATCAAGCTT CACAATACAT CAAACAGACC TTTGACTTTT	2400
AAAGTTTCAG CATCAGCGAT AACTACAGAT TCTCTAACTG ACAGATTAAA ACTTGATGAA	2460
ACATATAAAG ATGAAAAATC TCCAGATGGT AAGCAAATTG TTCCAGAAAT TCACCCAGAA	2520
AAAGTCAAAG GAGCAAATAT CACATTTGAG CATGATACTT TCACTATAGG CGCAAATTCT	2580
AGCTTTGATT TGAATGCGGT TATAAATGTT GGAGAGGCCA AAAACAAAAA TAAATTTGTA	2640
GAATCATTTA TTCATTTTGA GTCAGTGGAA GCGATGGAAG CTCTAAACTC CAGCGGGAAG	2700
AAAATAAACT TCCAACCTTC TTTGTCGATG CCTCTAATGG GATTTGCTGG GAATTGGAAC	2760
CACGAACCAA TCCTTGATAA ATGGGCTTGG GAAGAAGGGT CAAGATCAAA AACACTGGGA	2820
GGTTATGATG ATGATGGTAA ACCGAAAATT CCAGGAACCT TAAATAAGGG AATTGGTGGA	2880
GAACATGGTA TAGATAAATT TAATCCAGCA GGAGTTATAC AAAATAGAAA AGATAAAAAT	2940
ACAACATCCC TGGATCAAAA TCCAGAATTA TTTGCTTTCA ATAACGAAGG GATCAACGCT	3000
CCATCATCAA GTGGTTCTAA GATTGCTAAC ATTTATCCTT TAGATTCAAA TGGAAATCCT	3060
CAAGATGCTC AACTTGAAAG AGGATTAACA CCTTCTCCAC TTGTATTAAG AAGTGCAGAA	3120
GAAGGATTGA TT	3132

(2) INFORMATION FOR SEQ ID NO: 111:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 14672 base pairs



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(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 111:

CGAGATTTCT TTAAATGAAC TACGTGAAAT CTACCCATCA TCCAGATCTG GATATTCTCT	60
CCTATCTATA AGTAAAGTTT TAGGAGATTT TAATATAAGT TCTCATGCTT TTAAAGCTTC	120
GGTAAGAGAT TTAAAACCGC TCAGTTTCCC ACTCATTTCG TTCTGGGAGA GTTCTCATTT	180
TATTATTCTT GAAAAAATTA GTAAAAACAA GTTTTATATT TTAGATCCTG CAAAAGGCAG	240
GCAGAGAATG TCAATAAGTG AATTTGAAAG GCATTATTCA AATATCATTT TAACATTTAA	300
AAAGTTAGAT AGCTTTATGT CTCGTAAAGA TAATAAGAAG TCGCCTGTTT TAAAGTATTT	360
TTTAAAGTAT AGGAATAAGC TAGGGATTTT ATTTTTTGTA ACAGCATTAT TGTATGTAAT	420
ACAATCATTA GTACCTATAG CTAATAGATA CATAATTGAC ACGAATTTCA AGGACGATTC	480
GTATTCGTCT AGAATGTTAT TTAATATATT ATTTATATTT ACTGTTTCAT TCTCACTAAT	540
GTATTTATTA AGACAGATAT ATGTTGCATC CTAAAATAT ATAATGGATA AAGAGATTAG	600
CTATGATTTT ATGAAACATT TGATATATTT ACCTTACAGT TTTTATGAAA AACGTACTTT	660
AGGGGATATA CTTTTTAGAG CTAACCTCTAT TGTTTATATA AGAGAAATAC TATCAAATAA	720
TTTTATAGCA GCTATACTTG ATTTGTAAAT GATTGTGGTT TATGCTGTGG TTTTATTTAG	780
CTTTTCTAAG TACATGGTAA TCTTTTAAAT ATCACTAAGT CTAGCTCTAT CTATTGTAAT	840
GTATCCAATC ATAAAAATCT CAAAAAATTT AATTGATAAA AATATAAAAG AAAAGGTAA	900
TGTTCAAAAT ATTACTTCCG AAGTAATTTT TAAAAATAGT GATATTAAGC TAACTGGAGA	960
AGAGGAATTT TGGATTAACA AATGGGATAA TTTTAATACA AAACAGCTCA TCATAGGTCG	1020
AAAACCTGAT ATACATTTAT CAATTGTTAG TAGTATAACG AATGTTTTAC AAATTATTCT	1080
CCCTGTTTTG ACCCTTATTG TAGGTGTAAA TATAAAAACA TTCGAACAAT TGACGTTAGG	1140
ACAAATTGTA GCAATAAGTA CAGTCTCACC ATACTTTATT TCTCCTATAA TTTCTTTAAG	1200
TGATAACTAT ATACAATTAA TGTATTATAA GGGATATTTT TTAAGAATAG AGGATGTGTT	1260
TAATACTAAA TCCGAATTAA TTCCAGAAAG AGTCAGTCAA GATATAAAAT TTGATAAAAA	1320
AATAGAATTA AAAGATATTT GGTATAAATA TGGATTATTT GATGATTATG TTTTGAAAGG	1380
AATAAATGTT ACTATTAAAA AAGGAGAAAC TGTTGCTATT GTTGAGAGAT CAGGTTTCAGG	1440
TAAGAGTACA TTAGCTAAAA TTTTATTAGG TTTATTAGAA CCTAATATTG GTTCAATAGA	1500
AGTTGATGGA GTAGAAAAAG AAGAAATTGG TCAAACATTG TATAGAAAGA TTTTGGAGC	1560

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AGTGTTACAA AATTCAACCC TAAGTTATGG TACCTTAAGA GAGAATTTGA CATTTGGACA	1620
CTTTGTTTCA GATGAAGAAT TAATGACAAA TCTAAATTCA ATTGGTCTTA GCAATGTAGT	1680
TAAATCTTTA CCTCTTGGAT TAGAGACAAT CATCGCTGAA GAAGGTAATA ACTTTTCTGG	1740
AGGGCAGCAG CAAATGATAC TTTTAGCTCG TTGTCTTTTG TCGAAACCTT CGGTAGTTGT	1800
TTTGGACGAA GCAACAAGTA GTTTAGATAA TTTATCTCAA CAAATTACAA CTTCTTACTT	1860
AAGTGAAATC GGTACCACTA AGATTTTAAT TGCCCATCGA CTAGATACTA TCAAGTCTGC	1920
AGATAAGATC TTAGTAATGC ATAATGGTGA AATTGTAGAG ATTGGGACCC ATAGAGAACT	1980
TCTTGAAC TA GGAGGCATTT ATAAGCAATT GTATTCAAAT AATTAGTTTT TGATTAAAAG	2040
GGTAAATTTA TGAAGATTAT GAAAAAAAAA TATTGGACTT TAGCGATATT ATTCTTTTGT	2100
TTGTTCAATA ATTCTGTAC TGCTCAAGAA ATACCTAAAA ATCTTGATGG CAATATAACT	2160
CACACTCAGA CTAGCGAAAG TTTTCTGAA TCTGATGAAA AACAGGTTGA CTATTCTAAT	2220
AAAAATCAAG AAGAAGTAGA CAAAAATAAA TTTCGTATTC AAATCGATAA GACAGAATTA	2280
TTTGTAACAA CAGATAAACA TTTAGAAAAA AACTGTTGTA AATTGGAAC TGAACCACAA	2340
ATAAATAACG ATATTGTTAA CTCTGAAAGT AATAATTTAC TAGGCGAAGA TAATTTAGAT	2400
AATAAAATTA AGGAAAATGT TTCTCATCTA GATAATAGAG GAGGAAATAT AGAGCATGAC	2460
AAAGATAACT TAGAATCGTC GATTGTAAGA AAATATGAAT GGGATATAGA TAAAGTTACT	2520
GGTGGAGGCG AAAGTTATAA ATTATATTCT AAAAGTAATT CTAAAGTTTC AATTGCTATT	2580
TTAGATTCAG GAGTCGATTT ACAAATACT GGATTACTGA AAAATCTTTC AAATCACTCA	2640
AAAAACTATG TCCCCAATAA AGGATATTTA GGAAAAGAGG AGGGAGAGGA AGGAATAATA	2700
TCAGATATTC AAGATAGATT AGGTCATGGT ACGGCTGTTG TAGCTCAAAT TGTAGGGGAT	2760
GACAATATTA ATGGAGTAAA TCCTCACGTT AATATTAACG TCTATAGAAT ATTTGGTAAG	2820
TCGTCAGCTA GTCCAGATTG GATTGTAAAA GCAATTTTGT ATGCTGTAGA TGATGGCAAT	2880
GATATTATCA ATCTTAGTAC TGGACAATAT TTAATGATTG ATGGAGAATA TGAGGACGGA	2940
ACAAATGATT TTGAAACATT TTTGAAGTAT AAAAAGGCTA TTGATTACGC GAATCAAAAA	3000
GGAGTAATTA TAGTAGCTGC ATTAGGGAAT GACTCCCTAA ATGTATCAAA TCAGTCAGAT	3060
TTATTGAAAC TTATTAGTTC ACGCAAAAAA GTAAGAAAAC CAGGATTAGT AGTTGATGTT	3120
CCAAGTTATT TCTCATCTAC AATTTCCGTC GGAGGCATAG ATCGCTTAGG TAATTTATCA	3180
GATTTTAGCA ATAAAGGGGA TTCTGATGCA ATATATGCGC CTGCAGGCTC AACATTATCT	3240
CTTTCAGAAT TAGGACTTAA TAACTTTATT AATGCAGAAA AATATAAAGA AGATTGGATT	3300

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TTTTCGGCAA	CACTAGGAGG	ATATACGTAT	CTTTATGGAA	ACTCATTTGC	TGCTCCTAAA	3360
GTTTCTGGTG	CGATTGCAAT	GATTATTGAT	AAATACAAAT	TAAAAGATCA	GCCCTATAAT	3420
TATATGTTTG	TAAAAAAATT	CTGGAAGAAA	CATTACCAGT	AAAAAATGGT	ATAAAAGTGT	3480
TAAATATACC	AAACGTATTG	AGATATGATT	TGAATATGTT	ACAATTAGAA	TATAAAAATG	3540
AACAAAGTTG	GGATAGTTTC	ATAGATAATG	TTAATTTAAT	TGAGTTGGAA	GAGAGAATTC	3600
AAACTACTAT	TGGAATTAAA	CAAATAAACA	CACACAATAT	TATTACTATT	GCCCGAGAAG	3660
GGTACTCTCA	AAATTATTTA	CCTAACACTT	CAGAAAATAC	ATATAATTCA	TTACAAGTCA	3720
GTTTAGTTGG	AGTATTACTA	CTTTTTATAA	GTATGGTAAA	TATTTTATGG	GCTAAAAAAA	3780
GTAAATGAAA	ATAAAATTTG	GAGCCCTCTG	AAAAAGTAAG	TCCTACAGTT	CAACTAAAAT	3840
GAGTCAAAAG	ATGAATCACC	TTGATGTAGG	GGAGTTTGTC	TTATTGCTGC	CTGAACACCT	3900
CCGTTTCAGAG	GAAGAACATT	ATAAATCTGT	TTTTGAAGAC	GACTTAACCA	GTCGCATATC	3960
TAGTCAAGAT	GAACGACAGC	AAATGACTGC	TACGGTAGGT	TATTTAGAAT	CAGGTCAGGA	4020
TCGTTTTGTG	TATAATACGA	CCCCTATTTT	TTACCAGCAG	TTTTTGAAAG	ATCCAATCAT	4080
CATTGTTATA	ACACCCCAAT	CAACTGGTCC	ACAGTCCATT	TTGTTTTGGA	TAGACGCAGT	4140
ACAGAACTAC	GTTCTCTTTA	ATCAATTGTC	TGATGCCCAG	GAGCTTATCC	AGAGACAAGG	4200
CATTGAAAAT	TGGGTCTCAG	AAATGCAAAC	AGGTACCAC	AACTACATCA	CATTATTGGA	4260
TAATATCCAG	AGGGAACGTT	GGGTAATGCT	AGCAGGAGCT	GTGCTTGGGA	TTGCAACTTC	4320
AATCTTGTTG	TTTAACACTA	TGAATAGGCT	CTACTTTGAA	GAATTTAGAC	GTGCCATTTT	4380
TATCAAACGC	ATTGCAGGTC	TCAGGTTCTT	AGAAATCCAT	CGCACTTATC	TCTTTGCTCA	4440
ACTGGGTGTG	TTTTTACTGG	GATTTGTTGC	GAGTGTATTT	CTTCAGGTAG	AGATAGGAGT	4500
TGCTTTCTTA	GTCTTGTTAC	TCTTTACTGG	TCTATCTCTT	TTACAGTTAC	ATGTCCAAAT	4560
GCAGAAAGAA	AACAAGATGT	CCATGCTTGT	TTTGAAGGGA	GGTTAATATG	ATTGAACTTA	4620
AACAGGTGAG	TAAATCTTTT	GGAGAACGAG	AGTTATTTTC	GAATCTTTCA	ATGACATTTG	4680
AGGCTGGAAA	AGTCTATGCC	TTAATTGGTT	CAAGTGGTAG	CGGAAAAACA	ACCTTGATGA	4740
ACATGATTGG	GAAATTAGAA	CCTTATGATG	GGACGATTTT	TTACCGAGGT	AAAGACTTGG	4800
CCAATTATAA	ATCAAGTGAT	TTTTTCCGTC	ACGAATTGGG	CTACCTCTTC	CAGAACTTTG	4860
GCTTAATTGA	AAACCAAAGT	ATTGAAGAAA	ACCTTAAGCT	AGGTCTCATT	GGTCAAAAGT	4920
TGAGTCGGTC	GGAACAGCGG	TTGAGGCAGA	AGCAGGCTTT	AGAACAGGTC	GGCCTGGTTT	4980
ATCTTGACCT	AGATAAGCGC	ATCTTTGAGT	TATCGGGCGG	AGAATCGCAA	CGGGTTGCCT	5040
TGGCAAAAAT	TATCTTAAAG	AATCCACCCT	TTATTCTGGC	AGATGAGCCA	ACAGCTTCAA	5100

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TAGACCCAGC	AACCTCTCAG	TTGATTATGG	AGATTTTGCT	ATCTCTTCGA	GATGATAATA	5160
GGCTAATCAT	TATCGCAACA	CATAATCCGG	CAATTTGGGA	GATGGCTGAT	GAAGTGTTCA	5220
CGATGGATCA	TCTGAAATAA	AAATCCTTGT	TTTAAATTGC	ACGATGAGTT	ACTGAAATAT	5280
TATCATGAAT	CAAGAATTGG	AGTTAATTTA	GAATTGTACT	TAATTTAGAA	TTGTACTTTA	5340
TTAATATTGA	GGTAACTTTT	TCTTGATAAA	GGAAGAAATA	ATGGAGAGGA	AGTTAGAATG	5400
AAAAAATTCG	ACAATTATAT	TATTGAGAAG	CCTTGCGATT	CTAATTCAGA	TAAACTGCAA	5460
AAAATCTTAA	TAATTGAAAG	TTTGGTAGAT	GATATTTTGC	AATTTTCTCT	CAGAATCAAT	5520
AATAGTGTAG	GAGAGATTTT	CCTCCTACAA	CCGTTTTAAA	AGAAAACAT	CTTTATTCCA	5580
TGTTATTTTG	AGGAAGATAT	TGTGAAAGTC	AAAGATGATG	ATAAAGTTGA	GTGGAATTTG	5640
TTAGAATTTT	AAAAATTTAG	AGCATTTTTG	GCTTAGTAAT	CTGTGTTGAA	GGCTCAAAAC	5700
CTATGGTAAA	AAAGTAGCTT	TGAAAACGTA	TTGCC'TCCAA	AGATTTTAGTT	AAATAATGAT	5760
TTAACACAAA	AAGAAATTAT	TGAAGTTCTG	GAAAGATGTT	GTTTCAGTAT	TGAGAAAAGG	5820
TGGGAAAAAC	TTGCGATTTT	CACAGAGAAA	GGAAGAAAAA	GTATAGAAAT	ATAGTCAATT	5880
GAAACAAGAA	CAGGATAAAA	GAACCTTTTG	TGCCATATTT	TTCTCCTTTC	GCTTTACAAT	5940
TGGATTGAAC	ACCTTTATTG	TATCGCGTTT	GGAGTTTTTT	TGGTATAACC	TTCGACGCAC	6000
ACCCGCATAG	CGGGTGTTTT	TTTTGTCTCG	CACCTAACGG	AGCGAGACAA	ACTAATAGTC	6060
ACTTAATCAA	AAAACGCACC	ATATCAAAAA	CTAAAAAGTT	TGATATCATG	CGTCATGTCT	6120
TAAACTAATT	GACTATACTT	TCTATTCAAA	TGAGCTTTTA	ACCAATTGAT	TGAGCCAATC	6180
CACTCTTAAA	ACCAAAGAGC	AATTTCTCGC	TTAGCTGACT	CTTCTGAATC	TGAACCATGT	6240
ACAACATTTT	GGATAATCTC	ATTTTCTCCA	GCAGCTTTTG	CAAAATCACC	TCGAATAGTG	6300
CCTGGTAAAG	CTTCTTCTGG	ACGAGTTGCA	CCCATCATGG	TCCGCCAAGT	TTCGATTACT	6360
TTGGGACCAG	AAATGACACC	CACAAGAACT	GGACCTGAAG	TCATGAATTC	ACGAATCGGT	6420
GGGTAAAAAC	TCTGACCAAC	CAAGTCCTGA	TAGTGCTGGT	CAATCAACTC	TTCTGAAACC	6480
TGTGAACGAA	ACTCCAATTT	TTTCGATTGTA	AATCCACGTT	GTTTCGATGCG	CTTTAACACT	6540
TCACCCACTA	GCCCTCTTTT	TACACCATCT	GGTTTGATGA	TAAAGAATGT	TTGTTCCATA	6600
CCCGTCTCCT	TTGTCAGCTT	CTTTCTTTTA	TTTTACCACA	TTTCGTGGAA	AAATGGAGAA	6660
AGTTTTTCAGA	AGAGAGAATG	AGAGAACCCT	CGGGTTCTCT	CATTCTCTCT	TATTCTACTG	6720
TTTCTTCCAC	AGTTTCAACG	GCAGTATCCA	CAACTACTTC	TGTTGTTTCT	TCATTTCCCTT	6780
CTTCCTCTAC	TGGAGGATTA	AGGTATTCTT	CTTCGTTGAC	AGCATGTGGT	TCAAGGTTAC	6840



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GGTAACGGGC	CATACCAGTA	CCAGCTGGGA	TGATCTTACC	GATGATAACA	TTTTCTTTAA	6900
GTCCAAGGAG	ATGGTCTTTC	TTACCACGGA	TAGCTGCGTC	AGTAAGGACA	CGAGTTGTTT	6960
CCTGGAAGGA	AGCCGCTGAC	AAGAACTGT	TTGTTTCAAG	TGAGGCTTTG	GTAATTCCCA	7020
TAAGGACTGG	GCGACCTGTC	GCTGGAAGTC	CACCTGCGAT	AAGGACATCT	TTGTTGGCAT	7080
CTGTAAAGTC	ATTGATATCC	ATGAGGGTAC	CCATGAGAAG	ATCTGTATCA	CCTGGATCCA	7140
TGACACGGAC	TTTACGGATC	ATTTGACGAA	CCATTACCTC	GATGTGTTTG	TCACCGATTT	7200
CTACCCCTTG	GCTACGGTAA	ACTTTTGTGA	CTTCACCGAG	AAGGTACGTT	TCAACTGACA	7260
AGACATCACG	AACTGCAAGG	AGACGTTTTG	GTTGGATAGA	ACCTTCTGTC	AGAGCAGCAC	7320
CACGCGCTAC	TTGGCCCCCA	ACTTCGACAC	GCATACGAGC	TGTAAATGGA	ACGACATATT	7380
CACCTTCGCC	AGTTTCACCC	TTAACAAAGA	CTTCTTGGGT	ACGAGTTGAT	GCATCTTCTT	7440
CGATAGCAGT	AACTTGTCCT	TTAACCTCTG	TAATAACCGC	TTCCCCTTTA	GGATTGCGGG	7500
CTTCAAAGAT	TTCTTGGACA	CGAGGAAGAC	CCTGAGTGAT	ATCGGTATTT	GAGGCAACCC	7560
CACCTGTGTG	GAAGGTACGC	ATTGTAAGCT	GTGTACCAGG	TTCCCCGATA	GATTGGGCAG	7620
CGATTGTACC	AACTGCTTCA	CCAACTTCAA	CCGCATCACC	AGTCGCCAAG	TTGATACCGT	7680
AACAGTGACG	GCAGACACCG	TGACGAGTGT	TACATGTAAA	TACAGAACGG	ATAGTCACTT	7740
CTTCCACACC	AGCATTGACA	ATTTACGCG	CCTTGTCTTC	TGTAATCAAT	TCATTTGGAC	7800
CAATAATCAC	TGCACCAAGT	TCTGGATGTT	TAACAGTTTT	CTTAGTGTA	CGACCGTTGA	7860
GACGCTCTTC	GAGAGACTCG	ATCATCTCTT	TTCTTCTG	GATAGAACGG	ATCAAGAGAC	7920
CACGGTCAGT	TCCACAGTCG	TCCTCACGGA	TGATAACGTC	TTGGGCAACG	TCGACCAAAC	7980
GACGAGTCAA	GTAACCTGAG	TCGGCTGTCT	TAAGGGCCGT	ATCGGTCATA	CCTTTACGAG	8040
CACCGTGAGT	TGAGAAGAAC	ATTTCCAATA	CCGACAAACC	TTGCGGAAG	TTTGAAAGGA	8100
TTGGCAATTC	CATGATACGT	CCATTCGGAG	CAGCCATCAG	ACCACGCATA	CCGGCAAGCT	8160
GTGAGAAGTT	TGAGATGTTA	CCACGGGCTC	CAGAGTCCAT	CATCATAACG	ATTGGGTTC	8220
TAGGATCTTG	GTTAGCAATC	AAGCGTTTCT	CAAGTTTTTC	ACGGGCAGCA	CGCCATTCAG	8280
CTGTAAACAGC	ATTGTAACGC	TCGTGCTCTG	TGATCATACC	ACGACGGAAT	TGTTTGGTGA	8340
TTTGTTTCGAC	ACGTTTGTGT	GATTCTTCAA	TGATTTACAGC	CTTGTCATCA	ACGACTGGGA	8400
TATCGGCAAT	ACCACTGTC	AATCCTGCAA	GAGTTGAGTG	GTGGTAACCG	AGGTTCTTCA	8460
TGCGGTCAAG	TAGGGCAGAA	GTTTCTGTCG	TACGGAAACG	TTTGAAGATT	TCAGCGATGA	8520
TATTTCCAAG	GTTTTTCTTC	TTGAATGGAG	GGTTGAGCTC	AAGATTGCTG	ATAGCTTCCT	8580
TGATATCTCC	ACCAAGTGGC	AAGAAGTATT	TAGCTGGAAC	ACCTTCTGTC	AAGTTGGCAT	8640

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TGTTTGGTTC	TTGCAAGTAT	GGTAGCCCCCT	CTGGCATGAT	ATCGTTGAAG	AGAATTTTAC	8700
CAACTGTTGT	AAGCAAGACC	TTATGTCTTT	GCTCTTCTGT	CCAAGGCTTG	TTGAGGCTGT	8760
CTGTTGCGAT	ACCAACACGT	GAGTGGAGGT	GAACATAACC	ATTGCGGTAA	GCCATAACCG	8820
CTTCGTCACG	GTCTTTGAAG	ACCATTCCCTT	CACCTTCGCG	ACCAGCTTCT	TCCATGGTCA	8880
AGTAGTAGTT	ACCCAAAACC	ATGTCCTGAG	ATGGAGTAAC	TACCGGTTTC	CCATCTTTTCG	8940
GGTTCAAGAT	GTGCTCAGCA	GCTAGCATGA	GGATACGAGC	TTCTGCTTGT	GCTTCTTCTG	9000
AAAGTGGTAC	GTGGATGGCC	ATTTGGTCCC	CGTCAAAGTC	AGCATTGTAG	GCTTCACAGA	9060
CAAGTGGGTG	CAAGCGAAGA	GCCTTACCAT	CAATCAAGAC	TGGCTCGAAG	GCTTGGATAC	9120
CCAAACGGTG	AAGGGTCGGT	GCGCGGTTCA	AAAGCACTGG	GTGTTCTTTA	ATCACTTCTT	9180
CAAGGATATC	CCAGATACGC	TCATCTCCGC	GTTCCACCAA	GCGTTTAGCT	GCTTTGACGT	9240
TTTGCACGAT	ATCACGGGCA	ACGATTTTAC	GCATGACAAA	TGGTTTAAAG	AGTTCAATCG	9300
CCATTTACAG	CGGCACACCA	CATTGGTACA	TCTTAAGAGT	TGGACCAACG	GCGATAACTG	9360
AACGTCCTGA	GAAGTCAACA	CGTTTACCGA	GCAAGTTTTG	ACGGAAGCGT	CCTTGTTTAC	9420
CTTTAAGCAT	GTGGCTCAAT	GATTTCAATG	GACGGCTACC	TGGTCCTGTG	ATTGGACGAC	9480
CACGACGACC	ATTGTCAATC	AAAGCGTCAA	CTGCTTCTTG	AAGCATACGC	TTCTCATTTT	9540
GAACGATGAT	ACCTGGTGCA	TTTAACTCAA	GCAAACGAGC	CAAACGGTTG	TTACGGTTGA	9600
TAACACGGCG	GTAAAGGTCA	TTCAAGTCAG	ATGAGGCAAA	ACGGCCACCA	TCCAAC TGCA	9660
ACATTGGACG	AAGATCTGGT	GGGATAACCG	GAAGGATGTT	AAGAATCATC	CATTCAGGTT	9720
TGTTTCCAGA	CTTGTA AAAAG	GCATCCAAAA	CATCCAAACG	ACGGATGGCT	TTGACACGCT	9780
TTTGTCAGT	AGCTGTTTTT	AATCTTCTT	TGAGTTCAGC	AATTTCTTTT	TCAAGATCTA	9840
CTTGCTTCAA	AAGGTC TTGG	ATGGCTTCCG	CACCCATCTT	GGCAACAAAT	GAACCATAAC	9900
CATATTCACG	CAAGCGCTCT	CGGTATTTCG	GCTCTGTCAT	GATAGACTTG	TGCTCAAGTG	9960
GTGTATCCTT	AGGATCAATC	ACCACATAAG	CCGCAAAGTA	GATAACTTCC	TCGAGGGCAC	10020
GAGGGCTCAT	ATCAAGGGTC	AAGCCCATAC	GGCTTGGAAT	CCCCTTGAAG	TACCAGATGT	10080
GAGATACAGG	AGCTTTCAAT	TCGATATGTC	CCATACGCTC	ACGACGAACT	TTCGTACGCG	10140
TTACTTCAAC	CCCACAGCGG	TCACAAACAA	TTCTCTGTGA	ACGAATGCGT	TTGTACTTAC	10200
CACAAGCACA	TTCCCAGTCT	TTTG TAGGAC	CAAAGATCAC	TTCATCAAAG	AGTCCTTCAC	10260
GTTCTGGTTT	CAAGGTACGA	TAATTGATTG	TTTCAGGTTT	TTTGACTTCT	CCATAAGACC	10320
ATGAACGGAC	TTTACTTGGA	GAAGCTAGGG	TGATTTG CAT	ACTTTTAAAA	CGATTTACAT	10380

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CAACCACTAT	TTCTTCCCTT	TCTATTCTAA	GTGAACTGCT	TATTCTTGTT	CAGCAGCTTC	10440
TTCTGTTGCT	TCCGCTTTTG	TTGCTTTCTC	AGCTTCTTCA	GCTTCAAAGG	CTGCTTTAGC	10500
CTCTTGGGCT	GCTTTTTCGC	GGGCTTTTTT	AAGGTCATCT	ACGTGGATGA	CATCTTCGTC	10560
CATTCCTTCA	TCCAAGTCGC	GAAGTTCCAC	TTCTTGGTCA	TCTTCGTCTA	GGACACGCAT	10620
GTCAAGACCA	AGAGATTGCA	ATTCTTTGAC	AAGAACTCGG	AAGGATTCTG	GAACACCTGG	10680
TTTTGGAATT	GGTTTGCCTT	TTGTAATAGC	TTCATAGGCT	TTCAAACGTC	CGTTGATATC	10740
GTCCGACTTG	TAAGTCAAGA	TTTCTTGAAG	GACATTTGAC	GCACCGTAGG	CTTCAAGAGC	10800
CCAAACCTCC	ATCTCACCGA	AACGTTGTCC	ACCAAACCTGA	GCCTTACCTC	CGAGTGGTTG	10860
TTGGGTAAACA	GTTGAGTATG	GTCCGACTGA	ACGCGCGTGC	AATTTATCAT	CAACCATGTG	10920
GTGGAGTTTG	ATCATGTACA	TGACTCCGAC	AGAAACACGG	TTATCAAACG	GTTCAACAGT	10980
ACGTCCATCG	TAAAGGATCG	TTTTGGCATC	GCTATCCATA	CCTGCTTCTT	TAACAGTTGA	11040
CCAAAGATCT	TCAGAACTTG	CTCCATCAAA	GACTGGTGTA	GCGATGTGAA	TACCAAGAGT	11100
ACGAGCTGCC	ATACCAAGGT	GAAGCTCCAT	AACCTGACCG	ATATTCATAC	GTGATGGTAC	11160
CCCAAGTGGG	TTCAACATGA	TGTCGACTGG	AGTTCCGTCT	GGAAGGTAAG	GCATGTCTTC	11220
TACAGGAACG	ATACGAGAGA	CAACCCCTTT	GTTTCCGTGA	CGTCCGGCCA	TTTTATCTCC	11280
GACCTTAATC	TTACGTTTTT	GAGCGATGTA	AACACGAACC	AACATGTTAA	CACCTGATTG	11340
CAACTCATCT	CCATTTACAC	GTGTAAAGAT	CTTAACATCA	CGAACGACAC	CATCGGCACC	11400
GTGTGGTACA	CGAAGAGAAG	TATCACGCAC	TTCACGAGAC	TTGTCTCCAA	AGATAGCGTG	11460
CAAGAGACGT	TCTTCAGCTG	AAAGATCTTT	CTCACCTTAA	GGTGTTACTT	TACCTACAAG	11520
AATATCACCT	TCTTTAACCT	CAGCACCAAT	ACGGATAATC	CCCATTTCGT	CAAGGCTTTT	11580
GAGGGCATCT	TCACCAACGT	TTGGAATTTT	GCGAGTGATT	TCTTCAGGCC	CAAGCTTTGT	11640
ATCGCGCGTT	TCTGATTCGT	ATTCTTCAAG	GTGAACAGAT	GTGTAGACAT	CGTCCTTCAC	11700
CAAGCGTTTCG	CTCATGATAA	CGGCATCCTC	GAAGTTGTAA	CCTTCCCAAG	TCATGTAGGC	11760
AACGATTGGG	TTTTGTCCAA	GCGCCATTTT	TCCATTTTCC	ATAGAAGGTC	CGTCAGCGAT	11820
GAAATCGCCT	TTTTCAACGA	CATCACCAAC	TTTTACGAGA	GTGCGTTGGT	TGTAAGCAGT	11880
ACCTGAGTTT	GAACGACGGA	ATTTTTGGAT	GTGGTAAACA	TCCAATGAAC	CATCTTCACG	11940
ACGAACTTCT	ACCTTGTCAG	CATCTGCGTA	AGTAACTTTA	CCATCATACT	GAGCAATCAC	12000
AGCCGCACCA	GAATCGTGGG	CTGCTTGGTA	TTCCATACCA	GTACCAACGT	AAGGTGCCTG	12060
AGGATTAATC	AATGGCACAG	CCTGACGTTG	CATATTGGCT	CCCATGAGGG	CACGGTTGGA	12120
GTCATCGTTT	TCCAAGAAAG	GAATACATGC	TGTCGCAACG	GCAACTACCT	GTTTTGGTGA	12180

AACGTCCATG	TAGTCAACAA	TATTAGCTGG	ATACTCTTGG	TTGACCCCTT	GGTGACGTCC	12240
CATGACAATC	TTCTCAGCAA	AGGTTCATC	TTCATTGAGA	CGAGAGTTAG	CCTGAGCTAC	12300
AGTATATTCA	TCTTCTTCAT	CAGCTGTCAA	CCAAACAATT	TCGTTCGTGA	CAACACCTGT	12360
TTCACGGTCA	ACCTTACGGT	ATGGTGTTTG	AACAAAACCA	TATTTGTTCA	AGTGTCCATA	12420
AGATGACAAG	TTATTGATCA	AACCGATGTT	AGGTCCTTCA	GGTGTCTCGA	TTGGACACAT	12480
ACGACCATAG	TGAGTG TAGT	GCACGTCACG	TACTTCATAT	CCAGCACGGT	CACGAGTCAA	12540
ACCACCAGGT	CCTAAGGCTG	ACAAACGGCG	TTTGTGAGAC	AACTCAGAAA	GCGGGTTGTG	12600
TTGGTCCATG	AACTGTGACA	ACTGTGATGA	ACCAAAGAAT	TCTTTAACTG	CAGCTGTTAC	12660
AGGACGGATA	TTGATAATTT	GTTGTGGTGT	CAAGACTTCA	TTGTCCTGAA	CAGACATACG	12720
TTCACGGACA	TTACGTTCCA	TACGAGAAAG	TCCCAAACGT	ACTTGGTTGG	CAAGCAATTC	12780
ACCAACCGCA	CGGATACGAC	GATTTCCAAG	GTGGTCGATA	TCACTCTACAC	GGCCAAGTCC	12840
TTCAGCCAAG	TTGAGGAAGT	AGCTCATCTC	AGCAAGGATA	TCTGCAGGAG	TCACCGTACG	12900
AACCTTGTC	TCTGGGTTAG	CATTACCAAT	GATCGTTACG	ACGCGATCTG	GATCAGTTGG	12960
AGCAATAACC	TTGAATTTTT	GAAGAACAAC	AGGCTCAGTC	ACAACGGCTG	CATCGTTTGG	13020
GATGTAGACA	ATCTTGTTCA	AGTCGCCATC	CAAATGGCTT	TCAATGCTTT	CAATCACGCT	13080
ACGAGTCATA	ATCGTACCAG	CTTCTACCAA	GATTTCTCCA	GTTTCAGGGT	CTACCAATGG	13140
CTCTGCAATG	GTTTGGTTGA	GCAAACGTGT	TTTAACATTG	AGTTTTTTTAT	TGATTTTGTA	13200
ACGACCAACT	GCTGCCAAGT	CATAACGACG	TGGGTCAAAG	AAGCGAGCTA	CAAGCAAGCT	13260
ACGTGAGCTT	TCAGCCGTCT	TAGGCTCACC	TGGACGAAGG	CGTTCGTAAA	TTTCTTTCAA	13320
GGCTTCGTCT	GTACGAGAGT	CCATTGGATT	CTTGTGGATA	TCTTTTTTCAA	CAGTGTTGCG	13380
AACCAATTCTG	CTGTCACCAA	AGATATCAAA	GATTTTCATCA	TCACCTGAGA	AACCAAGAGC	13440
ACGAACCAAG	GTTGTAAATG	GAATCTTACG	AGTACGGTCG	ATACGAGTGT	AGGTGATATC	13500
TTTTGAGTCG	CTTTCAAGTT	CCAACCAAGC	TCCACGGTTA	GGGATAACAG	TTGAACCATA	13560
GCCCACCTTA	CCATTTTTGT	CTACTTTGTC	GTTAAAGTAA	ACACCTGGTG	AGCGGACCAA	13620
CTGAGAAACG	ATAATACGTT	CACCACCATT	GATGATGAAA	GTACCCATTT	CTGTCATGAT	13680
TGGGAAATCA	CCAAAGAAAA	CTTCTTGGGT	CTTGATTTTCG	CTTGTTTCTT	TATTGATCAA	13740
ACGGAAGGTT	ACAAAAATTG	GTGCTGAGTA	GCTAGCATCG	TGGATACGAG	CTTCTTCTAG	13800
CGTATATTTT	GGTTCCTTGA	TTTCATATCC	AACAAATTCC	AACTCCATTG	TGTCTGTGAA	13860
GTTTGAAATT	GGCAATACAT	CTTCAAACAC	TTCCTTAAGA	CCGTGGTCTA	GGAAAGCTTT	13920



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GAATGAGTCA	GTTTGAATTT	CAATCAAATT	TGGTAAGTCA	AGAACTTCTT	TGATTCTTGA	13980
AAAAC TACGA	CGGGTACGAT	GTTTCCCGTA	TTGAACGTCA	TGTCCTGCCA	AGATGATTCT	14040
CCTTTGTAAA	TAAGTTCCAA	GCCTTGTCAA	TCAGGCTTTT	CTAATCGTCA	TATGGTTGTA	14100
AACCCCTTAT	CACCGTGTCC	TCTTGACGAA	TTTTCAGAAT	CTTTAAGCCT	CTGTTACAAA	14160
TGCTCAAAAAT	CTTGAAAAAA	AGCACAAAAA	GAGCAGCTAA	ATCTGACTTT	TTCAGAAGAT	14220
TTAACTGCTG	TGAGCCTTGT	CTGGACAATA	TTTCAGACAA	AACCTACGAC	AAATGATTAC	14280
CCATATTATA	CCCTATTTAG	CTAGATTTTT	CAAGGGGTTT	CAGTAGGTTT	TTGGTAAATT	14340
TTTTCCCATATA	GAAAAC TTGG	CATCACATTC	GAATCACGCT	ATGGTACAAA	AAACTGAAAA	14400
AACTATTGAC	TGAAAATCAT	TTTCAAGGTA	TAATAATAAA	CGTTAAGGCG	GTATAGCCAA	14460
GTGGTAAGGC	ACGGCTCTGC	AAAAGCTTGA	TCGTCGGTTC	AAATCCGTCT	ACCGCCTTCT	14520
ATAACTTGAT	TTATCAGGTT	TCAAATGAAC	AGAAAGCCCA	ATTTGAAGGG	CTTTTTTTTAT	14580
TTTCCCTCGA	ATAAATACGT	ATAACTTTAA	AAACTTTTGG	AGCGAGTTTG	TGGCAGAGTT	14640
CTTTCCATGG	CATAATTCCC	TTTTGAAATC	AG			14672

(2) INFORMATION FOR SEQ ID NO: 112:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7902 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 112:

AGGAGACTAT	TCAAGCCCAA	ATTgAGTAGC	CCAGCAAAGA	CTGTATAGAC	TGTGATACGT	60
TTTTTCATAGC	CATTGGTAAA	GAGAATTTGG	GAACCAAGAA	TGGTATCTAA	GGCCAGGATA	120
ATCGTACGAA	AAGCGAAGAG	AGAGGTCAAG	ATGCCGCCTC	CGATATATTT	TTCCTACCG	180
TAAAGTAGGA	TGGCATT TTGG	TCCTAAAACC	ATGAGTCCAA	AACTCAGTGG	AATGATAAAG	240
AAGTTAAAGA	TTCGACTACC	TCTATTAAACC	AGAGAAACAT	AGGCTTCTTT	GTCTCCTTTC	300
CCCAGATAGT	AACTGAGACG	AGGCACACTC	ACTCCAATTG	CACCTGTTAC	AACCCAGCT	360
ATAACGGTCA	CAATTCGCTG	AGCTATGGTA	TAGTAACTAA	CGTTGACATC	AATCCCTGTT	420
TTAACGAGGA	AGAGGCGATC	TAAAAAAGTG	AAGAGCATAT	TGGCATTGGC	AAAGACTAAC	480
ATGGCTGTCA	GAGGGAGAAA	GAGTGGTTTA	AAATCACTTA	GGTGAATTTT	AACAAGTTTG	540
ATGTCTCTTT	TAATCCAAAA	ATAACTAATC	AGGTAGTTAA	TCAGCGTCGA	TAAACTCATC	600
ACAAGTGTAT	AGACAACAAT	ATCGTGTTCA	TTTTTAACAA	ATAAGAAAAT	AGAGACCAGC	660

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ATCAGGATAC	GGATGAAGGC	AGTTTTGTAA	AAGAGAAAAC	TGTAATTTTC	CAGAGCTTCA	720
TTGACCCATT	CGATTGAAAA	AATCTGGGCA	ATGAGTTGAA	TCCCCATAAC	AAGGTAGACC	780
TTTTTTGACGA	TTGGATTATC	AGTAAAGAAG	AGAGGATAGG	CTAGGATATA	GACAGCAGTG	840
GTCAAAATCG	TACAAGCGAT	GCACAAATAA	AAAAGACTAG	AAAAGGTTCT	GTTAAGATCT	900
TTTTTTGTTAT	CCTTGACATT	ACTGATAGCC	CTTAAACCGT	AGTTATAGAC	ACCATAAGTT	960
GCAAAGGGCA	AGAAAAATGA	CAAAATAGTG	TCGACTGAGT	TGAAGTAACC	ATAGTCAGTT	1020
CGGTCCAAGA	CACGCGCGAC	ATAGGTTCCA	GTTAGGATGG	GAAAAATAAT	ATTCAAGACA	1080
CGAATTCCCA	TGTAAGATAG	AGCATTTAAT	TTTATACTTT	TCATTCAATT	TACCTCGTTT	1140
TTCATTATAT	CATAAAGTTA	GCTAATAAGA	AATGAAGGGC	AGTAAGTCAA	GTAATCACTT	1200
TGAAGTTTCA	AATCTTAAGT	TTTAAGTTTT	CTTTAAGGAA	AGTATATTAT	TCTGAAGGAC	1260
TCTAAAATTT	CGCAGCCATT	TATTAGTAAT	TGCTACAGAA	TTCTTAGTCA	TTACTAGAAA	1320
TGGACTAGTT	TCTTTGAATA	ATAGAACTGC	ATAATTCTCC	TATTCTAGAA	GGGGAGGACC	1380
AGTATTTCTT	TTATGATAGG	ACTAGATTGT	GGTATAATAG	AGAGAATAAG	TTTTTTTAGT	1440
AAGACAAAGG	AGAAAATAGA	TGATTTATGC	AGGAATTCTT	GCCGGTGGAA	CTGGCACACG	1500
CATGGGGATC	AGTAACTTGC	CAAAACAATT	TTTAGAGCTA	GGTGATCGAC	CTATTTTGAT	1560
TCATACAATT	GAAAAATTTG	TCTTGGAGCC	AAGTATTGAA	AAAATTGTAG	TTGGTGTTCA	1620
TGGAGACTGG	GTTTCTCATG	CAGAAGATCT	TGTAGATAAA	TATCTTCCTC	TTTATAAGGA	1680
ACGTATCATC	ATTACAAAGG	GTGGTGCTGA	CCGCAATACA	AGTATTAAGA	ACATCATTGA	1740
AGCCATTGAT	GCTTATCGTC	CGCTTACTCC	AGAGGATATC	GTTGTTACCC	ACGATTCTGT	1800
TCGTCCATTT	ATTACACTTC	GCATGATTCA	GGACAATATC	CAACTTGCCC	AAAATCATGA	1860
CGCAGTGGAC	ACAGTGGTAG	AAGCGGTTGA	TACTATCGTT	GAAAGTACCA	ATGGTCAATT	1920
TATTACAGAT	ATTCCAAATC	GTGCTCACCT	TTATCAAGGA	CAAACACCTC	AAACATTCCG	1980
TTGCAAGGAC	TTCATGGACC	TTTATGGATC	TCTTTCTGAT	GAAGAGAAGG	AAATCTTGAC	2040
AGATGCATGT	AAAATCTTTG	TGATCAAAGG	AAAAGATGTG	GCTTTGGCCA	AAGGTGAATA	2100
CTCAAATCTG	AAGATTACAA	CCGTAACAGA	TTTGAAGATT	GCAAAAAGTA	TGATTGAGAA	2160
AGACTAGTAA	AATGATTAAT	CAAATTTATC	AACTAACTAA	GCCTAAGTTT	ATCAATGTCA	2220
AATATCAGGA	AGAGGCTATT	GACCAAGAGA	ATCATATCCT	TATCCGTCCC	AACTACATGG	2280
CTGTCTGTCA	TGCGGATCAG	CGTTACTATC	AGGGAAAACG	TGATCCCAAG	ATTTTGAATA	2340
AAAAGCTTCC	AATGGCAATG	ATTCACGAGT	CATGTGGAAC	CGTCATTTCT	GACCCGACCG	2400

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GAACCTACGA	GGTTGGTCAA	AAAGTTGTCA	TGATTCCCAA	TCAGTCTCCT	ATGCAGAGTG	2460
ATGAAGAATT	CTATGAAAAC	TACATGACAG	GGACCCATTT	CTTGTCTAGT	GGATTTGATG	2520
GCTTTATGAG	AGAGTTTGTT	TCTCTCCCTA	AAGATCGTGT	GGTGGCTTAT	GATGCTATTG	2580
AAGATACGGT	TGCAGCCATT	ACAGAGTTTG	TCAGTGTGGG	CATGCACGCT	ATGAATCGTC	2640
TATTGACTCT	TGCTCATAGC	AAGCGGGAGC	GGATCGCCGT	TATTGGAGAT	GGAAGTTTAG	2700
CTTTTGTGGT	TGCCAATATT	ATCAACTATA	CTTTGCCAGA	AGCAGAGATT	GTGGTTATTG	2760
GTCGTCATTG	GGAAAAGTTG	GAACTCTTCT	CATTTGCCAA	AGAATGCTAT	ATTACGGATA	2820
ATATTCCTGA	AGATTTGGCC	TTTGACCATG	CTTTTGAATG	TTGTGGTGGT	GATGGTACTG	2880
GACCAGCTAT	TAATGACTTG	ATTCGCTACA	TTCGTCCTCA	GGGAACGATT	CTCATGATGG	2940
GAGTTAGCGA	ATATAAAGTC	AATCTCAATA	CTCGCGATGC	CTTAGAAAAG	GGCTTGATTT	3000
TGGTTGGGTC	ATCTCGTTCT	GGTCGCATTG	ATTTTGAAAA	TGCTATCCAA	ATGATGGAAG	3060
TCAAGAAATT	TGCCAATCGT	CTTAAAAATA	TCCTTTATCT	AGAAGAACCT	GTAAGAGAAA	3120
TTAAAGATAT	TCATCGTGTC	TTTGCAACCG	ATTTAAACAC	AGCCTTTAAA	ACAGTGTTTA	3180
AGTGGGAAGT	ATAAGTACTG	GAGGTTAATT	GTGGAGAAAA	TCATTAAAGA	AAAAATTTCT	3240
TCCTTACTTA	GTCAAGAAGA	GGAAGTCCTC	AGTGTTGAAC	AACTGGGTGG	AATGACCAAT	3300
CAAACTATT	TGGCCAAAAC	AACAAATAAG	CAATACATTG	TTAAATTCTT	TGGTAAAGGG	3360
ACAGAAAAGC	TTATCAATCG	ACAAGATGAA	AAGTACAATC	TTGAACTACT	AAAGGATTTA	3420
GGCTTAGATG	TAAAAAATTA	TCTTTTTTGAT	ATTGAAGCTG	GTATCAAAGT	AAATGAGTAT	3480
ATCGAATCTG	CGATTACGCT	TGATTCAACG	TCAATCAAGA	CCAAGTTCGA	CAAAATTACT	3540
CCAATATTAC	AAACTATTCA	TACGTCTGCT	AAGGAATTAA	GAGGAGAATT	TGCTCCTTTT	3600
GAAGAAATCA	AAAAATACGA	ATCCTTGATT	GAAGAACAAA	TTCCTTATGC	CAACTATGAA	3660
TCTGTTAGAA	ATGCAGTCTT	CTCCTTAGAG	AAAAGACTGG	CTGACTTAGG	TGTTGACAGA	3720
AAATCTTGTC	ATATCGATTT	GGTGCCTGAA	AACTTTATCG	AATCACCTCA	AGGACGACTT	3780
TATTTGATTG	ACTGGGAATA	TTCATCAATG	AATGATCCAA	TGTGGGATTT	GGCTGCCCTC	3840
TTTTTAGAGT	CTGAATTCAC	TTCCCAAGAG	GAAGAACTT	TCTTATCTCA	CTATGAGAGT	3900
GACCAAACAC	CGGTTTCTCA	TGAAAAGATT	GCTATTTATA	AAATTTTACA	AGATACTATT	3960
TGGAGTCTAT	GGAAGTCTTA	TAAGGAAGAG	CAAGGTGAAG	ATTTTGGTGA	CTATGGTGTG	4020
AATCGTTACC	AAAGAGCTAT	TAAAGGTTTG	GCTTCTTATG	GAGGTTTACA	TGAAAAGTAA	4080
AAACGGAGTT	CCTTTTGGCC	TTCTCTCAGG	TATTTTCTGG	GGCTTGGGTC	TAACGGTTAG	4140
TGCTTATATC	TTTTTCGATTT	TTACAGATTT	GTCACCCTTT	GTGGTGGCTG	CAACTCATGA	4200

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TTTTTTGAGC	ATCTTTATCT	TACTAGCTTT	TCTCTTGGTA	AAAGAAGGGA	AAGTTCGCCT	4260
CTCAATTTTC	TTAAATATTC	GCAATGTCAG	TGTTATCATC	GGAGCCTTGC	TAGCAGGCCC	4320
TATCGGTATG	CAGGCCAATC	TTTATGCAGT	TAAGTATATC	GGAAGTCTT	TAGCTTCATC	4380
TGTATCGGCT	ATTTACCCTG	CGATTTTCAGT	TCTATTGGCT	TTCTTCTTTT	TGAAGCACAA	4440
GATTTTCGAAA	AATACTGTAT	TTGGGATTGT	CTTGATTATT	GGAGGGATTA	TTGCTCAGAC	4500
CTATAAGGTT	GAACAGGTTA	ATTCTTTCTA	CATTGGGATT	CTTTGTGCTT	TGGTTTGTGC	4560
TATTGCATGG	GGAAGTGAGA	GTGTTCTTAG	CTCTTTTGCC	ATGGAAAGTG	AATTGAGTGA	4620
AATCGAAGCC	CTCTTAATCC	GTCAAGTAAC	TTCGTTCTTG	TCCTATCTTG	TGATTGTGCT	4680
CTTCTCTCAT	CAGTCATTTA	CTGCAGTAGC	CAATGGACAA	TTGCTAGGTC	TCATGATTGT	4740
TTTTTGCAGCC	TTTGATATGA	TTTCCTACTT	GGCTTATTAT	ATCGCTATCA	ATCGCTTGCA	4800
ACCAGCCAAG	GCTACAGGCT	TGAACGTGAG	CTATGTAGTA	TGGACGGTCT	TGTTTGCAGT	4860
TGTTTTCTTG	GGTGCACCGC	TAGATATGCT	GACCATTATG	ACGTCACTTG	TCGTCATTGC	4920
TGGAGTTTAT	ATTATTATTA	AAGAATAAAG	GAGATTCGTG	TGAAAGCCAT	TATCTTAGCA	4980
GCGGGATTGG	GAACCTGCTT	GCGTCCTATG	ACTGAAAATA	CCCCTAAAGC	CTTGGTTCAG	5040
GTTAATCAAA	AACCTTTGAT	TGAGTACCAA	ATTGAGTTTC	TCAAAGAAAA	AGGAATCAAT	5100
GACATCATCA	TCATTGTTGG	TTATCTTAAA	GAACAATTCG	ATTACTTGAA	AGAGAAATAC	5160
GGTGTTTCGTC	TCGTTTTCAA	TGATAAATAC	GCTGACTACA	ATAACTTTTA	CTCTCTCTAT	5220
CTTGTA AAAAG	AAGAATTGGC	CAACAGCTAT	GTTATTGATG	CTGACAATTA	TCTCTTTAAA	5280
AATATGTTCC	GCAATGATTT	GACACGTTTCG	ACTTATTTTA	GTGTTTATCG	TGAAGATTGT	5340
ACCAACGAAT	GGTTCTTGGT	TTATGGAGAT	GACTACAAGG	TTCAAGACAT	TATTGTTGAT	5400
AGCAAGGCAG	GTCGCATCCT	TAGTGGTGTA	TCCTTCTGGG	ATGCTCCAAC	TGCAGAAAAG	5460
ATTGTCAGCT	TTATCGACAA	GGCTTATGTA	AGTGGTGAAT	TTGTTGATCT	CTATTGGGAC	5520
AATATGGTTA	AGGATAATAT	CAAAGAGCTA	GATGTCTATG	TTGAAGAATT	AGAAGGCAAT	5580
AGCATTTATG	AGATCGATAG	TGTCCAAGAC	TATCGTAAAT	TAGAAGAAAT	TCTTAAAAAC	5640
GAAAATTAAA	GATTCCAACA	TCTGACAAAA	TAGTCGGATG	TTTTTTGATT	TTTTACGAAC	5700
TTTTACGAAT	AGATAGATGA	GTAGAAAAAG	AAATGGAGTT	ATTTATGAAA	ATCACAAACT	5760
ATGAAATCTA	TAAGTTAAAA	AAATCAGGTT	TGACCAATCA	ACAGATTTTG	AAAGTGCTAG	5820
AATACGGTGA	AAATGTTGAT	CAGGAGCTTT	TGTTGGGTGA	TATTGCAGAT	ATCTCAGGTT	5880
GCCGTAATCC	AGCCGTTTTT	ATGGAACGTT	ATTTTCAGAT	AGACGATGCG	CATTTGTCTGA	5940



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AAGAGTTTCA	AAAATTTCCA	TCTTTCTCTA	TTTGTAGATGA	CTGTTATCCT	TGGGATTTGA	6000
GTGAAATATA	TGATGCGCCT	GTACTTTTAT	TTTACAAGGG	AAATCTTGAC	CTCCTGAAAT	6060
TCCCGAAGGT	AGCGGTCGTG	GGCAGTCGTG	CTTGTAGCAA	ACAGGGAGCT	AAGTCAGTTG	6120
AAAAAGTCAT	TCAAGGCTTG	GAAAATGAAC	TGGTTATTGT	CAGTGGTCTG	GCCAAGGGCA	6180
TTGACACAGC	AGCTCATATG	GCAGCTCTTC	AGAATGGCGG	AAAAACCATT	GCAGTGATTG	6240
GAACAGGACT	GGATGTGTTT	TATCCTAAAG	CCAATAAACG	CTTGCAAGAC	TACATCGGCA	6300
ATGACCATCT	GGTTCTAAGT	GAATATGGAC	CTGGTGAACA	ACCTCTGAAA	TTTCATTTTC	6360
CTGCCCCGTA	TCGCATCATT	GCTGGACTTT	GTCGTGGTGT	GATTGTAGCA	GAGGCTAAGA	6420
TGCGTTCAGG	TAGTCTCATT	ACGTGTGAGC	GAGCAATGGA	AGAAGGACGC	GATGTCTTTG	6480
CTATTCCTGG	TAGCATTTTA	GATGGACTAT	CAGACGGTTG	CCATCATTTG	ATTCAAGAAG	6540
GAGCAAAATT	GGTCACCAGT	GGGCAAGATG	TTCTTGCGGA	ATTTGAATTT	TAAAAATGAC	6600
CTAAGCTAGA	ATTCTAAGAA	AAAATCAATT	TTAAGAGAAA	ATGAACCCAA	CATTTCCATA	6660
ATAAAACGCA	TATTAGCAAG	TTTTTAACAC	TTGATAATAT	GCGTTTTTTC	TAAGTGGATT	6720
AGTAGAGTAG	AGGATTTTTTC	TCATATAATA	CTCTTCGAAA	ATCTCTTCAA	ACTACGTCAG	6780
CTTCCATCTG	CAACCTCAAA	ACAGTATTTT	GAGCgaCTtC	GTCAGTCTTA	TCTACAACCT	6840
CAAAGCAGTG	CTTTGAGCAA	CCTGTGGCTA	GCTTCCTAGT	TTGCGCTTTG	ATTTTCATTG	6900
AGTATAAGGG	AAAGTATAGT	GAATTGAAAT	AAGATGTGAA	CAACTCTATC	AGGAAAGTCA	6960
AATTAATTTA	TAGAAATATT	TTAGCAGCCA	AGGTGTACTG	TTATAGATTG	AATTACACTA	7020
TAATTTAGTG	TAATTGAGAA	AGGAGAAATG	ATTGTGATTG	ATGTTGGCTA	GGTTATGTTC	7080
AATGATTCCT	ACCGTCTCAA	ATCTTGTCAG	TAAGGAAAAA	TAAATTCTTC	AAAAGTAGAG	7140
ATTACAAGGC	TTGTTTAAGA	AAGAATTCAA	AGACCTTGAC	AAATAAAAAT	AAAATGGTTA	7200
TTATAAAAAA	TGGTCTGAAA	TAGATGATGA	TACTTTTCGA	AAATCTCTTC	AAATACGTCA	7260
GCTCAGCTTT	GCCTTGCTGT	GTTTTGAGCA	AGCTACGGTT	AGCTTCCGAG	TTTGATTTTC	7320
ATTTACTAGA	AATGAAACTG	ATGAGAGATA	TCAGTAGACA	TTTGAGTCAG	GATATTATGG	7380
AAAATGATAA	AAAGAGCTCG	TGAGATTGGC	ATATCAGACT	ACTAAAGTAT	TGAGTTTGTT	7440
AGGATTTTAG	CGACTAGTTA	GCTGGGAAAG	GAAGATATTT	GTGACAAATA	ATAAACTGTA	7500
TTGTTGATA	GAATTTAGAA	ATAAAAATATA	TGAAGAATTA	GAACCTTCCA	GAAGTGATTT	7560
AGCGATTTTA	CTATGTGCCA	TGCTTATCGC	CTCTATCGGA	TTAAATATGG	ATTCGACTCC	7620
CGTGATTATT	GGAGCCATGT	TAATCTCTCC	TTTGATGACA	CCTATTCTGG	GAGTGGGGCT	7680
CTCTCTAGCT	ATATTTGATT	TTAAATTGTT	AAGAAAATCT	TTTAAAATAT	TAGCTATTCA	7740

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AATTCTTGCC AGTCTAATAG CTTCAACACT TTATTTTAT CTTTCTCCCA TTTCGTATGC	7800
TAGTTCGGAG ATTGTTGCTA GAACCTCTCC GACTATTTGG GATGTTCTCA TTGCTTTTGT	7860
AGGAGGGATA GCAGGTATCA TTGGTGCTAG GAAAAAAGAG AC	7902

(2) INFORMATION FOR SEQ ID NO: 113:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18627 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 113:

GAAGTTGAAA TGGCCAGCTG ATGAGCAATA TCGGTCATAG AAATCTTCTC AATCAACTTT	60
TGCGCAATTT TTTGGTTGAT AATACGAGGA ATTTGGTGAT TTTTCTTGAC GATAGAAGTT	120
TCAGCGACCA TCATTTTGA ACAGTGATAG CACTTGAAAC GACGCTTCT AAGTAGAATT	180
CTAGTAGGCA TACCAGTTGT CTCAAGGTAA GGAATCTTAG ACGGTTTTTG AAAGTCATAT	240
TTCTTCAATT GGTTCGCA CTCAGGGCAA GATGGGGCGT CGTAGTCCAG TTTGGCGATG	300
ATTCCTTGT GTGTATCTTT ATTGATGATG TCTAAAATCT GGATATTAGG GTCTTTAATG	360
TCTAGTAATT TTGTGATAAA ATGTAATTGT TCCATATGAA TCTTTCTAAT GAGTTGTTTG	420
GTCGCTTTTC ATTATAGGTC ATATGGGACT TTTTTTCTAC AATAAAATAG GCTCCATAAT	480
ATCTATAAGG GATTTACCCA CTACAAATAT TATAGAGCCA AAAATCCTTT GTTTACTAAA	540
CAAGGGATTT TTCTTTTGTC TCTGCTCCTT TTTTGATATA ATAGTTCTAT GTTAAATCA	600
GAAAAACAAT CACGTTATCA AATGTTAAAT GAAGAATTGT CCTTCCTATT GGAAGGCGAA	660
ACCAATGTTT TGGCTAATCT TTCCAACGCC AGTGCTCTCA TAAATCACG TTTTCCTAAT	720
ACCGTATTTG CAGGCTTTTA TTTGTTGAT GGAAAGGAAT TGGTTTTAGG CCCCTTCCAA	780
GGAGGTGTTT CCTGCATCCG TATTGCACTA GGCAAGGGTG TTTGTGGTGA GGCAGCTCAC	840
TTTCAGGAAA CTGTTATTGT TGGAGATGTG ACGACCTATC TCAACTATAT TTCTTGATG	900
AGCTAGCTA AAAGTGAAAT TGTGGTGCCG ATGATGAAGA ATGGTCAGTT ACTTGGAGTT	960
CTGGATCTGG ATTCTTCAGA GATTGAGGAT TACGATGCTA TGGATCGAGA TTATTTGGAA	1020
CAATTTGTCG CTATTTTGCT TGAAAAGACA GCATGGGACT TTACGATGTT TGAGGAAAAA	1080
TCTTAATGTA TCAAGCACTT TATCGAAAAT ATAGAAGTCA AAAGTTCTCC CAGTTAGTTG	1140
GTCAAGAAGT TGTGGCTAAG ACTCTTAAAC AAGCGGTGGA GCAAGAGAAA ATAAGTCACG	1200

820

CTTATCTTTT	TTCTGGTCCT	CGTGGAACGG	GAAAAACCAG	TGTTGCTAAA	ATCTTTGCCA	1260
AGGCTATGAA	CTGTCCCAAT	CAAGTGGGTG	GCGAACCTTG	CAATAACTGC	TATATTTGTC	1320
AAGCAGTGAC	GGACGGTAGT	TTAGAAGATG	TCATTGAAAT	GGATGCAGCT	TCTAATAATG	1380
GGGTAGATGA	AATTCGCGAA	ATTCGTGATA	AATCTACCTA	TGCGCCTAGC	CTTGCTCGTT	1440
ATAAGGTTTA	TATCATAGAT	GAGGTTTACA	TGCTGTCTAC	AGGGGCTTTT	AATGCCCTCC	1500
TAAAGACGCT	GGAAGAACCA	ACACAGAATG	TAGTCTTTAT	TTTGGCCACT	ACTGAATTGC	1560
ACAAGATTCC	TGCTACTATT	CTATCCCGTG	TGCAACGTTT	TGAGTTTAAA	TCAATTAAGA	1620
CACAGGATAT	TAAGGAACAT	ATTCACTATA	TCTTAGAAAA	AGAAAATATC	AGTTCTGAAC	1680
CAGAGGCTGT	GGAAATCATT	GCCAGACGGG	CGGAAGGTGG	AATGCGGGAC	GCCTTGTCTA	1740
TTTTGGATCA	AGCCCTGAGT	TTGACACAGG	GAAATGAGCT	GACGACTGCT	ATCTCTGAAG	1800
AAATTACTGG	CACCATTAGC	CTATCAGCCT	TGGATGATTA	TGTGGCGGCC	TTGTCTCAAC	1860
AGGATGTTCC	CAAAGCTTTG	TCTTGCTTGA	ATCTTCTTTT	TGACAATGGT	AAGAGCATGA	1920
CTCGTTTTGT	GACCGATCTT	TTGCACTATT	TAAGAGACTT	GTTAATTGTT	CAAACAGGGG	1980
GAGCAAATAC	TCATCATAGT	TCAGTCTTTG	TAGAAAATTT	GGCACTTCCT	CAAAAAATC	2040
TGTTTGAAAT	GATTCGCTTA	GCAACAGTGA	GTTTAGCAGA	TATTAAGTCT	AGTTTGCAAC	2100
CCAAGATTTA	TGCTGAAATG	ATGACCGTCC	GTTTGGCGGA	AATCAAGTCC	GAACCAGCTC	2160
TATCAGGAGC	GGTTGAAAAT	GAAATTGCTA	CGCTGAGACA	GGAAGTTGCC	CGTCTCAAAC	2220
AAGAGCTTTC	TAATGTAGGT	GCGGTTCTTA	AACAAGTTGC	ACCAGCTCCT	AGTCGACCAG	2280
CTACGGGCAA	AACAGTCTAT	CGTGTCGATC	GCAATAAAGT	GCAATCTATC	TTACAAGAGG	2340
CCGTCGAAAA	TCCTGATTTA	GCACGTCAAA	ATTTAATTCG	TTTGCAGAAT	GCCTGGGGAG	2400
AGGTAATTGA	AAGTCTAGGT	GGGCCGGACA	AGGCTCTGCT	AGTTGGTTCT	CAACCGGTTG	2460
CTGCCAATGA	ACACCATGCT	ATTCTTGCTT	TTGAGTCTAA	CTTCAATGCT	GGTCAAACCTA	2520
TGAAACGAGA	CAATCTCAAT	ACCATGTTTG	GTAATATCCT	CAGTCAGGCG	GCAGGTTTTT	2580
CACCTGAGAT	TTTAGCTATT	TCCATGGAGG	AATGGAAAGA	AGTTCGCGCA	GCCTTTTCAG	2640
CCAAAGCCAA	ATCTTCTCAA	ACTGAAAAAG	AAGTAGAAGA	AAGCCTGATT	CCAGAAGGAT	2700
TTGAATTTTT	GGCTGATAAA	GTGAAGGTAG	AGGAAGACTA	AAGAAAGATT	TCATGATACA	2760
ATAAGTTTAT	GAATAAACAA	CAATTTATTA	TTATGGCGCT	GTTTACAGCT	GCTGAGACCT	2820
ATTTTTTCAA	TGAAGCCTGG	ATGACTGGCC	GCTATATTAT	GGCAGCCTTT	TGGGCAATTT	2880
TACTCTTTAG	AAATTTCCGA	GTCAGTTATG	TGATGGGCAA	AATCGTTGAT	GTCATCGATC	2940
AGCATTTTAA	TAGGAAAGAC	TAGCCCTCAG	CTTCCAGACA	AAATCAAAGC	CTTTTAGGCT	3000

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TTTTTTTGT	ATACTAGAAA	AGTATATTTA	TAGAATTTTT	GCTCTATTTC	TGGGGAAATC	3060
AGACGTTTT	CTAGTAAGTA	CTGTAAAAGT	TTTGAAAAAG	AAAGGAACTA	TCATGTCAGT	3120
ATTAGAGATC	AAAGATCTTC	ACGTTGAGAT	TGAAGGAAAA	GAAATTTTAA	AAGGGGTAA	3180
CCTGACCCTG	AAAACAGGAG	AAATTGCCGC	TATCATGGGA	CCAAATGGTA	CAGGTAAATC	3240
GACTCTTTCT	GCCGCTATCA	TGGGAAATCC	AAACTATGAA	GTAATAAAG	GTGAAGTTTT	3300
GTTTGATGGC	GTAAACATCC	TTGAGTTGGA	AGTGGATGAG	CGTGCGCGTA	TGGGACTTTT	3360
CCTTGCTATG	CAATACCCAT	CAGAAATCCC	TGGAATTACC	AATGCTGAGT	TTCTTCGTGC	3420
CGCTATGAAT	GCGGGTAAAG	AAGATGATGA	GAAGATTTCA	GTTTCGTGAGT	TTATTACTAA	3480
GCTAGATGAA	AAAATGGAAT	TGCTCAACAT	GAAAGAAGAA	ATGGCAGAGC	GTTACCTCAA	3540
CGAAGGCTTC	TCTGGTGGTG	AGAAAAACG	CAATGAAATT	CTTCAACTTT	TGATGTTGGA	3600
GCCAACATTT	GCTCTTTTGG	ACGAGATTGA	CTCAGGTCTT	GATATTGACG	CTCTTAAAGT	3660
TGTGTCTAAA	GGTGTCAATG	CCATGCGTGG	TGAAGGTTTT	GGTGCTATGA	TCATCACTCA	3720
CTACCAACGT	CTTTTGAAC	ATATCACACC	TGATGTGGTA	CACGTGATGA	TGGAAGGTCG	3780
TGTTGTCCTT	TCTGGTGGTC	CAGAATTGGC	TGCGCGTTTG	GAACGTGAAG	GATACGCAAA	3840
ATTAGCTGAA	GAACCTGGCT	ACGACTACAA	GGAAGAATTG	TAATTCCTC	GTATCTTTTA	3900
GGAGAAGTAA	ATGACTAGAG	AAAATATTAA	ACTTTTTTCA	GAAATGCACG	CTGAACCAAG	3960
CTGGTTGGCT	GATCTCCGTC	AAAAAGCTTT	TGACAAGATT	GAGACTTTGG	AATTACCAGT	4020
TATTGAGTGT	GTCAAATTCC	ACCGTTGGAA	TCTGGGTGAT	GGAACGATTA	CAGAAAATGA	4080
GCCATCAGCA	AATGTTCCAG	ATTTACACAGC	TTTAGATCAT	CACCTGAAGT	TGGTGCAAGT	4140
AGGAACTCAA	ACTGTTTTCG	AACAACTCC	AGTTGAGTTA	GCTGAACAGG	GTGTTGTCTT	4200
CACAGACTTT	CATCAGCTT	TAGAAGAAAT	TCCAGAGCTG	ATCGAAGAAT	TCTTCATGTC	4260
ATCTGTTAAG	TATGATGATG	ACAAGTTGGC	GGCTTACCAC	ACAGCTTACT	TTAACAGTGG	4320
TGCTGTACTC	TATATTCCAG	ATAACGTAGA	AATCACAGAG	CCAATTGAAG	GAATTTTCTA	4380
CCAAGATAGC	GATAGCAATG	TGCCGTTTAA	CAAGCATATT	ATGATTATCG	TTGGTAAAAA	4440
TTCTAAGATT	AGTTATCTGG	AGCGTTTAGA	GTCACGCGGT	GAAGGAAGTG	ACAAAGCAAC	4500
TGCCAATATC	ACAGTGGAAG	TGATTGCACG	TTCTGGTGCG	CAAGTCAAGT	TTGCTGCTAT	4560
CGACCGTCTA	GGTGAAAACG	TCACTGCCTA	CATTAGCCGT	CGTGGTAAAT	TAGGCAACGA	4620
TGCAAGTATT	GACTGGGCTA	TCGGTGTGAT	GAACGAAGGA	AATGTCGTTG	CTGATTTTGA	4680
TAGTGACTTG	ATTGGTAATG	GTAGCCATGC	TGACCTCAAG	GTTGTAGCTC	TTTCAAGTGG	4740



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TCGTCAGGTA	CAAGGGATTG	ATACTCGTGT	AACTAACTAT	GGCTGCAACT	CAATCGGAAA	4800
CATTCTACAA	CATGGGGTTA	TCCTTGAAAA	AGCAACTTTG	ACTTTCAATG	GTATCGGCCA	4860
CATCATCAAG	GGTGCTAAGG	GAGCAGATGC	GCAACAAGAG	AGCCGTGTTC	TCATGCTTTC	4920
AGACCAAGCG	CGTTCAGATG	CTAACCCAAT	TCTTTTGATT	GATGAAAATG	ACGTAACTGC	4980
AGGCCATGCA	GCCTCTATTG	GTCAGGTAGA	TCCAGAAGAT	ATGTACTACC	TCATGAGTCG	5040
TGGCTTGGAT	AAGGCAACTG	CAGAGCGTTT	GGTTGTTTCG	GGTTTCCTTG	GATCTGTTAT	5100
CGTGGAGATT	CCAGTCAAGG	AAGTTCGTGA	TGAAATGATT	GCAACTATCG	AAGAGAAATT	5160
GTCAAAACGC	TAAGGGGCAG	CCTATGTTAG	ATGTAGAAGC	GATTCGCAAG	GATTTTCCAA	5220
TTTTAGATCA	GATTGTCAAT	GATGAACCTC	TGGTCTATCT	GGACAATGCT	GCGACGACAC	5280
AAAAACCACT	AGTAGTTCTG	AAAGCTATTA	ACAGCTACTA	TGAGCAGGAC	AATGCCAATG	5340
TTCACCGTGG	TGTCCATACC	TTAGCGGAAC	GAGCGACAGC	TTCTTATGAA	GCTGCTCGTG	5400
AAACCATTTC	TAAGTTTATT	AATGCAGGCT	CTACAAAGGA	AGTTCTCTTT	ACCAGAGGAA	5460
CGACAACCAG	CCTTAACTGG	GTGGCACGCT	TTGCTGAGGA	AATTCTCACT	GAGGGAGACC	5520
AGGTCTTGAT	TTCAAGTAATG	GAACACCATT	CTAATATCAT	TCCATGGCAG	GAAGCTTGTC	5580
GAAAGACTGG	AGCAGAGCTT	GTCTATGTCT	ATCTTAAAGA	CGGTGCCTTG	GATATGGAGG	5640
ATTTGCGAGC	TAAATTGACT	GATAAGGTTA	AATTTGTTTC	CCTAGCTCAT	GCCTCCAATG	5700
TTCTTGGTGT	GGTCAATCCG	ATCAAGGAAA	TCACTCAATT	AGCCCACCAA	GTTGGGGCAA	5760
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ATCTGGACTT	TTTCGCCTTT	TCGGGTCACA	AGATGGCTGG	TCCGACTGGT	ATCGGTGTCC	5880
TTTACGGCAA	AGAAAAGTAT	CTTGAGCAAA	TGTCTCCAGT	AGAATTTGGC	GGCGAGATGA	5940
TTGATTTTGT	CTACGAGCAA	TTTGCTAGTT	GGAAGGAATT	GCCTTGGAAG	TTTGAGGCTG	6000
GAACGCCAAA	TATGGCAGGA	GCTATTGGAC	TTGCGACTGC	AGTTGATTAT	CTGGAAAAGA	6060
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TGCAGGCAAT	TGAGGGATTG	ACCATTTACG	GTTCTCAGGA	TTTGGCTCAA	CGTTCGGGTG	6180
TTATTGCCTT	TAACCTAGGT	GATCTCCATC	CTCACGATCT	TGCGACGGCT	CTGGATTATG	6240
AAGGAGTGGC	TGTTTCGTGCT	GGTCACCATT	GTGCGCAACC	CTTGCTTCAG	TATTTGGAAG	6300
TCCCAGCAAC	AGCTCGTGCA	AGTTTTTATA	TCTACAATAC	CAAGGCAGAT	TGCGACAAAC	6360
TAGTCGATGC	CCTACAAAAG	ACAAAGGAGT	TTTTCAATGG	CACTTTCTAA	ACTAGATAGC	6420
CTTTATATGG	CAGTGGTAGC	AGACCATTTC	AAAAATCCAC	ATCACCAAGG	GAAGTTAGAA	6480
GATGCTGAGC	AAATCAGTCT	CAACAATCCG	ACTTGTGGGG	ATGTCATCAA	CCTCTCTGTC	6540

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AAGTTTGATG	CAGAGGACCG	TTTGGAAGAT	ATTGCTTTTC	TAAATTCAGG	ATGCACGATT	6600
TCAACTGCTT	CTGCTAGTAT	GATGACAGAT	GCCGTTTTAG	GAAAAACCAA	ACAAGAAATT	6660
TTAGAACTGG	CGACTATTTT	TTCTGAAATG	GTTCAAGGGC	AAAAAGATGA	GCGTCAAGAC	6720
CAACTTGGAG	ACGCGGCATT	CTTGTCAGGT	GTTGCCAAAT	TCCCTCAAAG	AATCAAGTGT	6780
GCAACCCTAG	CTTGGAATGC	CCTTAAGAAA	ACAATTGAAA	ATCAAGAAAA	ACAGTAAGAC	6840
AAGTTTCTTT	TGTCTTATGA	ATTATTAGAA	ATGAAGAAAG	AAAGGATACT	ATGGCTGAAG	6900
AAAGAGTAGA	ACCAAAACCA	ATTGACCTTG	GTGAATATAA	ATTTGGTTTC	CATGACGATG	6960
TAGAGCCTGT	CTTATCGACA	GGAAAAGGAC	TCAACGAAGG	TGTTATTCGT	GAATTATCTG	7020
CTGCTAAGGG	TGAGCCTGAG	TGGATGTTGG	AGTTCCGTTT	GAAGTCTTAT	GAAACCTTCA	7080
AAAAAATGCC	CATGCAAAC	TGGGGAGCAG	ACTTGTCAGA	GATTGACTTT	GATGACTTAA	7140
TCTACTACCA	AAAACCATCT	GACAAACCAG	CCCGTTCTTG	GGATGATGTA	CCTGAAAAGA	7200
TTAAAGAAAC	CTTTGAACGT	ATCGGGATT	CAGAAGCTGA	ACGTGCTTAT	TTAGCAGGGG	7260
CTTCTGCCCC	GTACGAGTCA	GAAGTGGTTT	ACCACAACAT	GAAGGAAGAG	TTCCAAAAAT	7320
TAGGTATTAT	CTTTACAGAT	ACAGATTCCG	CACTCAAGGA	ATACCCAGAC	TTATTTAAAC	7380
AATACTTTGC	GAAGTTGGTA	CCGCCGACAG	ATAACAAGTT	GGCAGCCCTC	AACTCAGCAG	7440
TATGGTCGGG	TGGAACTTTT	ATCTACGTGC	CAAAGGTGT	CAAGGTAGAT	ATTCCACTTC	7500
AACTTATTT	CCGTATCAAT	AACGAAAATA	TAGGTCAGTT	CGAACGTACC	TTGATTATCG	7560
TTGATGAGGG	AGCAAGCGTC	TACTACGTAG	AAGGATGTAC	AGCACCAACA	TATTCAAGCA	7620
ATAGCTTACA	CGCTGCCATT	GTAGAAATTT	TTGCTTTGGA	CGGAGCTTAT	ATGCGTTATA	7680
CAACTATCCA	AACTGGTCT	GATAACGTCT	ATAACTTGGT	AACAAAGCGT	GCTAAGGCTC	7740
AAAAGGATGC	CACTGTTGAG	TGGATTGATG	GAAACTTGGG	TGCCAAAACG	ACTATGAAAT	7800
ATCCATCTGT	TTACCTTGAT	GGAGAAGGAG	CGCGTGGTAC	CATGCTCTCT	ATCGCCTTTG	7860
CTAATGCAGG	GCAACACCAA	GACACGGGTG	CTAAGATGAT	TCACAATGCT	CCACATACCA	7920
GCTCGTCTAT	TGTGTCTAAA	TCCATCGCTA	AAGGTGGAGG	AAAGGTTGAC	TACCGTGGAC	7980
AAGTCACCTT	TAACAAGAAC	TCTAAGAAAT	CTGTTTCCCA	CATTGAATGT	GATACCATTA	8040
TCATGGATGA	CTTGTCAGCA	TCAGATACTA	TTCCATTTAA	TGAAATTCAC	AACTCGCAAG	8100
TGGCTTTGGA	ACACGAAGCC	AAAGTATCTA	AGATTTCAGA	AGAGCAATTG	TATTATCTCA	8160
TGAGCCGTGG	ATTGTCAGAA	TCTGAGGCAA	CTGAAATGAT	TGTCATGGGA	TTTGTAGAAC	8220
CCTTTACAAA	AGAACTTCCA	ATGGAATACG	CAGTTGAGCT	GAACCGCTTG	ATTAGCTATG	8280

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AAATGGAGGG ATCAGTTGGA TAAAATTTGA TTTTATACTC TTCGAAAATC TCTTCAAACC	8340
ACGTCAGCAT CGCCTTACCG TATGTATGGT TwCTGAtTCG TCAGTTTCAT CTACAACCTC	8400
AAAACAGTGT TTTGAGCAAC tGCGGCTAGC TTCCTAGTTT GTTCTTTGAT TTTGAGTATT	8460
AGATTTACTC AAAATCAAGG ATTTTGAAGA TGAAC TTGTA TCAAAAAATC GCGGTTTAAA	8520
ATCGCGATTT TTTATAATTT CTCGTTAACA AAGCGGACAA ACTGATTCCA CCAAAC TTTT	8580
AAGAAGAAGG CTTTTTCAAT TTTCTTGTCT GCTACCATTT CGAAACTAGG GCGCTCTGTG	8640
GTGATGTAAC CTTGACCAAT CAAGTCCTTG TCTTCATAAG TCAAATGGCC AACCAC TGT	8700
CCAGCTTCAA GTGGTGCTGG GATTGCTTTG GAATCAGGTG TGAATTGAAC AGATTGGGAA	8760
GATTGATTCC CAACACGTTT GATTAGATAG ATATCCTCTG GAGCCACTGC AGTTACTGTA	8820
TCTTCTTTTC CATCTTGTAAG AGGGGCTTTG CTATCTTGAT AGGCATCGCC TTGTTGAACG	8880
ATTTTGCAGG GTGTAAATGT AGAAGAAATA TAATCCATTA GGGAAGATGT AGCTGTAAAT	8940
CGAGCGTAAG GATTATTGTC TTGATGATCT GCATTTAAAA CAACTGTGAT GACTCTCATG	9000
CCTTTTTTCGA CAGTAGTACC AACAAAAGAC TCTCCAGCCT TATCTGTTGT TCCTGTTTTT	9060
AGCCCATCAA AACCACCACG GTAAGCAGGC ATACCTTCTA ACATGTAGTT GGTGGAAGTG	9120
ATTGTCATCC CAGCAAAAGT AGAAGAAGGT TTTTGGTGA TTTCTAAGAC TTGTGGGTAT	9180
TTTTTGATGA GGTTGCGAGC AACGATAGCG ACATCATAAG CACTAAGCTT ATTTTCCTCA	9240
TCTTTTTTAG AACCTGGGTA AATGTTATCC CCTAGAGTTT CATTGTTAAG ACCTGTCGTA	9300
TTGACAACAG TGGCATCCTG AATTCCCCAT TCCAAGAGTT TTGCCCGCAT CATATCGACG	9360
AAATCTTTTT CTGAGCCAGC AATTTTCTCA GCTAGGGCAA TAGCGGCGCT GTTGGCACTA	9420
GATACCAGAG TTGCTTCAAG CAACTCTTCG ACAGTATAAT TACGGGCCTC CATAGGAATA	9480
TTACTGGCTT CAGAATTTGT CGTCAATTGA TAAGGATAAT CAGAAATATC TACAGGAGTG	9540
GAGAGGGTAA TACTTCCGTT TTCCAAAGCT TCATAGACCA GATAAACAGT AATCAATTTT	9600
GTTATGGAAG CAATTTTCGAC AGGTTGCGTT GCATCCTTCT CATAGAGAAT TTTACCAGTA	9660
TTTGCCTCAA CAGCAATCGC ATGTTTAGCG GCAATGGTAA AATCTTGAGC AACAGCAGTA	9720
GAAGCACCCC CTAAAAGAGA GACAGTTAAC AAAGTTAAAA ATATTTTTTT CATAGTAGTC	9780
TTATTCTATC ATAAAGAAAA AAAATATTCT TGCTTTAATA ATTCATCTGT TAAGCTTTTT	9840
GAAAATATGG TAAAATAAAG TAAGGGAGGT AACTCATGTT TCGTAGAAAT AAATTATTTT	9900
TTTGGACCAC AGAAATTTTA CTCTTAACCA TCATCTTTTA CCTATGGAGA CAGATGGGGT	9960
CTTTGATTAA CCCTTTTGTT AGCGTGCTTA ATACAATTAT GATTCCATTT TTATTAGGGG	10020
GCTTTTTTTT TTATTTGACA AACCCTATTG TTACTTTCTT AAATAAAGTC TGTAAACTCA	10080

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ATCGTTTGCT	TGGTATTTTA	ATTACCTTGT	GTACTTTGGT	CTGGGGAATG	GTCATAGGTG	10140
TTGTCTATCT	CTTACCTATT	TTGATTAATC	AGTTATCTAG	TTTGATTATA	TCTAGTCAAA	10200
CTATTTATAG	TCGAGTACAA	GACTTAATCA	TAGACTTATC	TAATTATCCT	GCGCTCCAGA	10260
ATTTGGATGT	AGAAGCTACA	ATTCAGCAGT	TAAACTTATC	CTATGTTGAT	ATTCTTCAAA	10320
ATATCCTAAA	TAGCGTATCA	AATAGTGTGG	GGAGCGTCTT	GTCAGCTCTT	ATCAGTACTG	10380
TTTTGATTTT	GATTATGACT	CCAGTTTTTT	TGGTTTATTT	CTTATTAGAT	GGACATAAAT	10440
TCTTGCCCAT	GCTTGAAAGA	ACGATTCTAA	AGAGGGATCG	CTTGCAATAT	GCAGGCTTAT	10500
TAAAGAATTT	AAATGCGACG	ATTGCTCGCT	ATATTAGTGG	AGTTTCGATT	GACGCAATCA	10560
TTATAGGTTG	TTTGGCTTAT	ATTGGCTATA	GTATTATTGG	TTTAAAATAT	GCTTTAGTTT	10620
TTGCCATTTT	TTCTGGTGTA	GCCAATTTAA	TTCCTTATGT	GGGGCCAAGT	ATTGGTTTGA	10680
TTCCTATGAT	CATCGCAAAT	ATATTCAGTG	ATCCCCATAG	ACTGCTGATT	GCAGTGATTT	10740
ATATGCTTGT	TGTTCAAGCAG	GTAGATGGCA	ATATCTTATA	TCCTCGAATC	GTAGGAAGTG	10800
TTATGAAGGT	TCATCCAATC	ACGATTTTAG	TTTTACTTTT	GTTGTCAAGC	AATATCTATG	10860
GTGTAGTTGG	AATGATTGTC	GCAGTGCCAA	CCTATTCTAT	CTTGAAAGAA	ATTTCTAAGT	10920
TCTTATCCCA	TTTGTATGAA	AATCATAAAA	TAATGAAAGA	ACGAGAAAGA	GAATTAGCTA	10980
AGTAAAAGTC	AGGAGAACCC	TGATTTTTCT	TTACTGGAAG	TGGCCTTTAG	ATTAGAAGAC	11040
TGAAAATAAG	TTAAAGTCTT	AAACTAATTT	TCACAGCTAA	GAATAGTAGA	AGTTAATCTG	11100
ATAAAAATCG	AAAAAACCAG	TGGAATTCTG	TGTCAGGGTA	AGTTCCACTG	GTTTTCATAG	11160
TCTATTAAAG	TTCGAATGAA	ACCTATTTAT	AGTAGATTGA	AACTAGAATA	GTACACCTCT	11220
AATTCTAAAA	CATTGTTAGA	AATCGATTTG	ACTGTCCTGA	TCTATTCGTT	CTATTCTTAT	11280
TTCATTTTAC	TATATTTTGG	TGCAATAAGT	GAAAAGTAGT	CCGAATAATA	TAAGGATTGA	11340
TTTTATAGTT	TTTAAACTCA	AATGAATTGA	AATAAAGAGA	GTACGAAAAT	TCTCATCTGA	11400
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ATGTGATTTT	TTTTTGCAAT	TTTGAGTTAG	ATAAGGTATA	ATGATTTTAT	TGTCTTTTGG	11520
GGTCGTTACG	GATTCGACAG	GCATTATGAG	GCATATTTTG	CGACTCGTGT	GGCGACGTAA	11580
ACGCTCAGTT	AAATATAACT	GCAAAAAATA	ACACTTCTTA	CGCTCTAGCT	GCCTAAAAAC	11640
CAGCAGGCGT	GACCCGATTT	GGATTGCTCG	TGTTCAATGA	CAGGTCTTAT	TATTAGCGAG	11700
ATACGATTAA	GCCTTGTCTA	GCGGTTTGAT	AAGAGATTGA	TAGACTCGCA	GTTTCTAGAC	11760
TTGAGTTATG	TGTCGAGGGG	CTGTTAAAAT	AATACATAAC	CTATGGTTGT	AGACAAATAT	11820



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GTTGGCAGGT	GTTTGGACGT	GGGTTCGACT	CCCACCGGCT	CCATTATTCC	TTTGCATTCT	11880
TTTGCATTCC	TTGGTAAAC	GTTGTAAAT	CAACGTTTTT	TATTTTATC	TTTGGTATTC	11940
CTTTGCATTC	TTTTGCTAAA	AAGGGAGTCA	CAAACAGACC	CTATTTTAAA	AAAGGATAGA	12000
AAAAAGGATA	CAACATTTGT	CGCATCCTAA	AAATAATCTT	TTTTCGACGG	AAGACATGGG	12060
ATTCGAACCC	ACGCACGCTA	TTACACGCCT	ACCGCGTTTC	CAACACGGCC	TCTTAAGCCT	12120
CTTGAGTAAT	CTTCCAATAC	TTACTCAAAT	AGTCTACCAT	AAAGGCTCTT	ATCTTGCAAT	12180
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CTTCGAAAGA	AAGTATGATA	GAATGAATAG	TGTAAACGAT	AACAGGAGGT	GATTCAGTGT	12300
TAAAAACAGA	ACGTAAACAA	CTAATTTTAG	AGGAGTTAAA	TCAACATCAT	GTAGTTTCTC	12360
TAGAAAAATT	AGTTAGTTTG	CTAGAAACGT	CAGAATCAAC	GGTTCGAAAGA	GACTTGGATG	12420
AGTTGGAAGC	GGAAAACAAG	CTTCGTCGTG	TGCATGGTGG	AGCAGAACTC	CCCTACTCCT	12480
TACAGGAAGA	AGAAACCATT	CAAGAAAAAT	CTGTCAAAAA	CCTTCAAGAA	AAGAAATTGC	12540
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CAACAACTGC	TTTTTTGATT	CATGAATTGG	TCAATAAGAA	TGTTACAGTT	GTGACCAACT	12660
CCATTACCA	TGCCGCTCAG	TTGGTTGAAA	AGCAGAwTCC	AACTGTCATG	GTTGGAGGAA	12720
ACGTCAAGAC	GGCGACAGAT	GCTAGTATCG	GGGGCGTTGC	TCTTAACCAG	ATTAACCAAT	12780
TGCACTTTGA	CCGTGCCTTT	ATCGGAATAA	ATGGTGTGTA	CGATGGCTAT	TATACGACTC	12840
CTGATATGGA	GGAGGGAGCT	GTGAAAAGAG	CTATTTTGGGA	GAATGCCAAG	CAGACCTACG	12900
TCTTGGTGGA	TTCGTCAAAA	ATTGGACAAA	CTTGCTTTGC	CAAGGTAGCC	CCACTCAAAC	12960
GCGCTATCGT	TATCACTAGT	CAAGGGCATG	AGCTCTTGCA	GGTTATTAAG	GAGAAAACGG	13020
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TTTGGACCAA	GTCAAAGTTG	GTAGTGTCAA	TCGTATGGAC	AGTGATGATA	AGTTTGCTGG	13140
TGGGAAAGGA	ATCAATGTCA	GCCGTGTCTT	GAAACGTTTG	AATATACCAA	ATACAGCGAC	13200
GGGATTTATC	GGTGGCTTTA	CTGGTAAATT	TATCACAGAT	ACTTTAGCAG	AGGAAGAAAT	13260
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CCAAGAAACA	GAAATCAACG	GAACGGGTCC	AACTGTTGAA	TCGGTTCAGC	TAGAAGAATT	13380
GAAAGCTATT	TTATCTAGTC	TGACAGCAGA	AGATACAGTT	GTCTTTGCAG	GTTCAAGTGC	13440
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GCAAGTGGTC	TGTGACTTTG	AAGGACAGAC	CTTAATTGAT	AGTTTGGACT	ACCAGCCTCT	13560
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AATCAAAGGA	ACAGTCAAAA	ATTCAGTTGG	AGCTGGTGAT	TCTATGGTTG	CTGGATTCAC	13800
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AACGGCAACT	ACCTTCTCAG	ATGACTTGGC	AACGGCGGAA	TTTATTAAAG	AAACATATGG	13920
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CTAGATTTGC	AGGCAACTGA	AAAAACAGCT	GTCATCGACG	AGATGATTAA	AAATTTGACA	14040
GACCACGGTT	ATGTAACAGA	TTTTGAAACA	TTTAAAGAAG	GAATTTTGGC	GCGTGAAGCT	14100
TTGACTTCTA	CTGGTTTGGG	TGATGGAATC	GCAATGCCTC	ACAGCAAAAA	CGCTGCTGTC	14160
AAAGAAGCGA	CAGTTCTATT	TGCTAAGTCA	AATAAGGGTG	TTGACTACGA	GAGCTTGGAT	14220
GGACAAGCAA	CTGACCTCTT	CTTCATGATT	GCAGCTCCAG	AAGGTGCCAA	TGATACTCAC	14280
TTGGCAGCCT	TGGCAGAATT	GTCTCAATAC	TTGATGAAAG	ACGGTTTTGC	AGACAAACTT	14340
CGTCAAGCAA	CATCTGCAGA	CCAAGTTATC	GAACTTTTTG	ACCAAGCTTC	AGAAAAAACT	14400
GAGGAACTTG	TTCAAGCACC	TGCTAATGAC	TCTGGTGACT	TTATCGTAGC	TGTTACAGCT	14460
TGTACAACAG	GTATTGCCCA	CACTTACATG	GCCCAAGAAG	CCCTTCAAAA	AGTAGCTGCT	14520
GAAATGGGGG	TTGGTATCAA	GGTCGAAACC	AACGGTGCTA	GCGGTGTTGG	AAATCAACTA	14580
ACTGCAGAAG	ATATCCGTAA	GGCTAAAGCT	ATTATCATTG	CAGCAGACAA	GGCCGTTGAA	14640
ATGGATCGAT	TTGATGGAAA	ACCATTGATC	AATCGTCCAG	TTGCTGACGG	TATCCGTAAG	14700
ACAGAAGAGC	TAATTAACCT	GGCTCTTTCA	GGAGATACTG	AAGTCTACCG	TGCCGCTAAT	14760
GGTGCCAAAG	CTGCAACAGC	CTCTAACGAA	AAACAAAGCC	TTGGTGGTGC	CTTGTAACAA	14820
CACTTGATGA	GTGGTGTATC	TCAAATGTTA	CCATTGCTTA	TCGGTGGTGG	TATCATGATT	14880
GCCCTTGCCT	TCTTGATTGA	CGGTGCTTTG	GGTGTTCCAA	ATGAAAACCT	TGGCAATCTT	14940
GGTTCTTACC	ATGAGTTAGC	TTCTATGTTT	ATGAAAATTG	GTGGAGCTGC	CTTTGGTTTG	15000
ATGCTTCCAG	TCTTTGCGGG	TTATGTTGCC	TACTCTATTG	CTGAAAAACC	GGGTTTGGTA	15060
GCAGGTTTCG	TGGCTGGTGC	TATTGCCAAA	GAAGGTTTTG	CCTTTGGTAA	AATTCCTTAT	15120
GCCGCAGGTG	GTGAAGCAAC	TTCAACTCTT	GCAGGTGTCT	CATCTGGTTT	CCTAGGTGCC	15180
CTTGTTGGTG	GATTTATCGC	AGGTGCCTTG	GTTCTTGCCA	TCAAGAAATA	CGTTAAAGTT	15240
CCTCGTTTAC	TCGAAGGTGC	TAAATCAATC	CTTCTATTGC	CACTTCTTGG	AACAATCTTG	15300
ACAGGATTTG	TTATGCTAGC	TGTGAATATC	CCAATGGCTG	CAATCAACAC	TGCTATGAAT	15360

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GACTTCCTAG	GCGGTCTTGG	AGGAGGTTCA	GCTGTCCTTC	TTGGTATCGT	CCTTGGTGGA	15420
ATGATGGCTG	TTGACATGGG	TGGACCAGTT	AATAAAGCAG	CTTATGTCTT	TGGTACAGGT	15480
ACGCTTGCAG	CAACTGTTTC	TTCAGGTGGT	TCTGTAGCCA	TGGCAGCAGT	TATGGCTGGA	15540
GGAATGGTGC	CACCACTTGC	AATCTTTGTC	GCAACTCTTC	TTTTCAAAGA	TAAATTTACT	15600
AAGGAAGAAC	GTAACCTCTGG	TTTGACAAAC	ATCATCATGG	GCTTGTCAAT	TATCACTGAG	15660
GGAGCGATTC	CATTTGGTGC	CGCTGACCCA	GCTCGTGCGA	TTCCAAGCTT	CATCCTTGGT	15720
TCAGCAGTAG	CAGGTGGACT	CGTTGGTCTT	ACTGGTATCA	AACTCATGGC	GCCACACGGA	15780
GGAATCTTCG	TTATCGCCCT	TACTTCAAAT	GCTCTCCTTT	ACCTCGTTTC	TGTCTTGGTA	15840
GGAGCAATCG	TAAGTGGTGT	GGTTTATGGT	TACCTACGCA	AACCACAAGC	ATAAAAAATA	15900
GAAAAATGAA	AAGATTGGAC	CGTTTGGTGC	AGTCTTTTTTC	TCTTCCCGAA	ATGCCTGTGA	15960
AATATGGTAT	AATAGAAGAA	TGGCAAACAA	GAATACAAGT	ACAACAAGAC	GGAGACCGTC	16020
TAAAGCAGAA	CTGGAAAGAA	AAGAAGCGAT	TCAACGAATG	TTGATTTCGT	TAGGAATTGC	16080
GATTTTATTG	ATTTTCGCAG	CCTTCAAATT	AGGGGCTGCA	GGTATAACCC	TTTATAATTT	16140
AATTCGCTTG	CTAGTGGGTA	GCCTAGCTTA	TCTGGCGATA	TTCGGCCTAT	TAATCTATCT	16200
CTTCTTTTTTC	AAGTGGATAC	GAAAACAGGA	AGGACTCTTA	TCTGGCTTTT	TCACCATATT	16260
TGCTGGCTTA	CTCTTGATTT	TTGAGGCCTA	CTTGGTTTGG	AAATATGGTT	TGGACAAGTC	16320
CGTTCTAAAA	GGGACCATGG	CTCAGGTGTG	GACAGATCTG	ACTGGTTTTTC	GAACGACTAG	16380
CTTTGCTGGA	GGGGGCTTGA	TCGGGGTCGC	TCTTTATATT	CCAACAGCCT	TTCTCTTTTC	16440
AAATATCGGA	ACTTACTTTA	TTGGTTCTAT	CTTGATTTTA	GTGGGTCTCT	TCCTAGTCAG	16500
CCCTTGGTCT	GTTTACGATA	TTGCTGAATT	TTTCAGTAGA	GGCTTTGCCA	AATGGTGGGA	16560
AGGGCACGAG	CGTCGAAAAG	AGGAACGCTT	TGTCAAACAA	GAAGAAAAAG	CTCGCCAAAA	16620
GGCTGAGAAA	GAGGCTAGAT	TAGAACAAGA	AGAGACTGAA	AAAGCCTTAC	TCGATTTGCC	16680
TCCTGTTGAT	ATGGAAACGG	GTGAAATTCT	GACAGAGGAA	GCTGTTCAAA	ATCTTCCACC	16740
TATTCCAGAA	GAAAAGTGGG	TGGAACCAGA	AATCATCCTG	CCTCAAGCTG	AACTTAAATT	16800
CCCTGAACAG	GAAGATGACT	CAGATGACGA	AGATGTTTCAG	GTCGATTTTT	CAGCCAAAGA	16860
AGCCCTTGAA	TACAAACTTC	CAAGCTTACA	ACTCTTTGCA	CCAGATAAAC	CAAAAGATCA	16920
GTCTAAAGAG	AAGAAAATTG	TCAGAGAAAA	TATCAAAATC	TTAGAAGCAA	CCTTTGCTAG	16980
CTTTGGTATT	AAGGTAACAG	TTGAACGGGC	CGAAATTGGG	CCATCAGTGA	CCAAGTATGA	17040
AGTCAAGCCG	GCTGTTGGTG	TAAGGGTCAA	CCGCATTTCC	AATCTATCAG	ATGACCTCGC	17100
TCTAGCCTTG	GCTGCCAAAG	ATGTCCGGAT	TGAAGCACCA	ATCCCTGGGA	AATCCCTAAT	17160

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CGGAATTGAA GTGCCCAACT CCGATATTGC CACTGTATCT TTCCGAGAAC TATGGGAACA	17220
ATCGCAAACG AAAGCAGAAA ATTTCTTGGA AATTCCTTTA GGAAGGCTG TTAATGGAAC	17280
CGCAAGAGCT TTTGACCTTT CTAAAATGCC CCACTTGCTA GTTGCAAGTT CAACGGGTTC	17340
AGGGAAGTCA GTAGCAGTTA ACGGCATTAT TGCTAGCATT CTCATGAAGG CGAGACCAGA	17400
TCAAGTTAAA TTTATGATGG TCGATCCCAA GATGGTTGAG TTATCTGTTT ACAATGATAT	17460
TCCCCACCTC TTGATTCCAG TCGTGACCAA TCCACGCAAA GCCAGCAAGG CTCTGCAAAA	17520
GGTTGTGGAT GAAATGGAAA ACCGTTATGA ACTCTTTGCC AAGGTGGGAG TTCGGAATAT	17580
TGCAGGTTTT AATGCCAAGG TAGAAGAGTT CAATTCCCAG TCTGAGTACA AGCAAATTCC	17640
GCTACCATTC ATTGTCGTGA TTGTGGATGA GTTGGCTGAC CTCATGATGG TGGCCAGCAA	17700
GGAAGTGGAA GATGCTATCA TCCGTCTTGG GCAGAAGGCG CGTGCTGCAG GTATCCACAT	17760
GATTCTTGCA ACTCAGCGTC CATCTGTTGA TGTCATCTCT GGTTCGATTA AGGCCAATGT	17820
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ATTGGACTGT TTTTCGTTTT CAGTAGCAGG TTTACTTGAA GCAGGAGTAG AAGAGTCCTG	18420
AGTTGCTGTT TTCTGATCTT CTTTTTCTC TTCCTTGACG CTAGATTTTG GTGTTTCCTC	18480
TTGCTGTGTT TTTTCTTGAC TAGTGTTAGT CTCTTTAGTT GGACTGGTGT TTTCTTAGG	18540
GGATTCCTTT TGGATTTCTT TGACAATGGT TGTCGTCTGG CTTGTCGTAG GTTCTTTTTT	18600
AATATTTTTG TTATTATCCA AGGCGTT	18627

(2) INFORMATION FOR SEQ ID NO: 114:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2560 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear



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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 114:

TAAAATACGT TACCTTGCTT CTGCACGTTT AGCAGGTAAG TCATTGAAAT TTAAAGATCA	60
AGATATTACA ATTGAAGAAA CGACTGAAAC AGCTTTTGAA GGAGTTGATA TTGCTCTCTT	120
TTGAGCAGGT AGTTCTACAT CAGCTAAGTA TGCACCATAC GCAGTAAAAG CTGGCGTGGT	180
AGTAGTAGAT AATACATCTT ATTTCCGTCA AAATCCAGAT GTTCCTTTGG TTGTTCCAGA	240
GGTCAATGCT CATGCACTTG ATGCTCACAA CGGAATCATT GCCTGCCCTA ATTGTTCAAC	300
AATTCAAATG ATGGTGGCTC TTGAGCCGGT TCGCCAAAAA TGGGGCTTGG ACCGTATCAT	360
TGTTTCAACT TATCAAGCCG TTTCAGGTGC TGGTATGGGA GCAATTCTTG AGACACAACG	420
TGAACTTCGT GAAGTCTTGA ATGATGGTGT GAAACCACGT GATTTGCATG CGGAAATCTT	480
GCCTTCAGGT GGTGACAAGA AACATTATCC TATCGCCTTT AACGCTCTTC CACAAATTGA	540
TGTTTTCACT GATAATGATT ACACGTACGA AGAGATGAAG ATGACCAAGG AAAC TAAGAA	600
AATTATGGAA GATGATAGCA TTGCAGTATC TGCAACATGT GTGCGTATTC CAGTCTTGTC	660
AGCTCACTCT GAGTCTGTTT ATATCGAAAC AAAAGAAGTG GCTCCAATCG AAGAAGTAAA	720
AGCAGCTATC GCAGCCTTCC CAGGTGCTGT TCTTGAAGAT GATGTAGCTC ATCAAATCTA	780
TCCTCAAGCT ATCAATGCAG TTGGTTCGCG TGATACCTTT GTTGGTCGTA TCCGTAAAGA	840
CTTGATGCA GAAAAAGGAA TTCACATGTG GGTGTTTCA GATAACCTTC TCAAAGGTGC	900
TGCTTGGAAC TCAGTTCAGA TTGCTGAAAC TCTTCATGAA CGTGGATTGG TTCGTCCAAC	960
AGCCGAATTG AAATTTGAAT TAAAATAGTC ATATCGTTTA GGAGTTCAGA TGAATCCTT	1020
CTTTGAAATA GAGAGGTGTT TTCGTGTCTT ATCAAGATTT AAAAAATGT AAAATCATT	1080
CAGCCTTTAT TACCCCTTC CATGAGGATG GTTCCATTAA CTTTGATGCT ATTCCAGCCT	1140
TGATTGAGCA TTTATTGGCC CATCATACGG ATGGAATTCT TCTCGCAGGA ACGACTGCTG	1200
AGAGTCCAAC TTTGACCCAC GATGAGGAGT TGGAGTTGTT TGCGGCTGTA CAAAAGGTTG	1260
TCAATGGACG CGTTCCTTTG ATTGCGGGTG TAGGTACTAA TGATACGCGT GACTCTATTG	1320
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ACTACAACAA ACCTTCTCAA GAAGGGATGT ATCAGCACTT TAAGACTATT GCAGATGCTT	1440
CTGACCTACC AATTATTATC TATAACATTC CAGGGCGTGT AGTTGTCGAA TTGACTCCAG	1500
AAACCATGCT TCGCTTGGCT GACCATCCAA ATATTATCGG TGTCAAAGAA TGTACTAGCT	1560
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AGGATGGAGA TGCTTTCCAT GCCATGAACC TTGGGGCGGA TGGGGTTATT TCTGTTGCCT	1680

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CTCATACAAA	TGGGGATGAA	ATGCACGAGA	TGTTTACTGC	GATTGCAGAA	AGCGATATGA	1740
AGAAAGCCGC	AGCAATTCAG	CGTAAATTC	TTCTTAAGGT	TAATGCTCTC	TTCTCTTATC	1800
CAAGTCCTGC	TCCAGTTAAG	GCAATTCTTA	ACTATATGGG	ATTGGAAGCT	GGACCCACTC	1860
GTCTACCTCT	TGTTCCAGCA	CCAGAAGAAG	ATGCCAAACG	CATTATCAAG	GTTGTCGTAG	1920
ATGGCGACTA	CGAAGCAACT	AAGGCAACTG	TAACAGGGGT	CTTAAGACCA	GATTACTAAT	1980
AAAGACAATA	AAATCCGGCT	CTTTGTCAAC	TGTAGTGGGT	TGAAGTCAGC	TAAGCTCGAG	2040
AAAGGACAAA	TTTTGTCCTT	TCTTTTTTGA	TATTCAGAGC	GATAAAAATC	CGTTTTTTGA	2100
AGTTTTCAAA	GTTCCGAAAA	CCAAAGGCAT	TGCGCTTGAT	AAGTTTGATG	AGATTATTGG	2160
TCGCTTCCAA	TTTGGCGTTT	GAATAGGGTA	GTTGAAGGGT	GTTGACGATT	TTCTTTTTGT	2220
CCTTTAGAAA	GGTTTTAAAG	ACAGTCTGAA	AAATAGGATG	AACCTGCTTC	AGATTGTCCT	2280
CAATGAGTCC	GAAAAATTC	TCCGGTTCCT	TATTCTGAAA	GTGAAACAGC	AAGAGTTGAT	2340
AGAGCTGATA	GTGATGTTTC	AAGTTTTGTG	AATAGCTCAA	AAGCTTGTTT	AAAATCTCTT	2400
TATTGGTTAA	GTGCATACGA	AAAGTAGGAC	GATAAAATCG	CTTATCACTC	AGTTTACGGC	2460
TATCCTGTTG	AATGAGTTTC	CAGTAGCGCT	TGATAGCCTT	GTATTCGGGA	TTTTCGATGA	2520
AACTGATTCA	TGATTTGGAC	ACGCACACGA	CTCATAGCAC			2560

(2) INFORMATION FOR SEQ ID NO: 115:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11303 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 115:

TATTGGATTT	CCCTTGCAAT	CAGTTTATGG	GACAAGCACC	CGGCAGCGCA	GAGGAAATCA	60
ACGCCTTCTG	TAGCCTACAT	TTTCAAACCA	CCTTCCCACG	TTTTGCCAAG	ATTAAGGTCA	120
ACGGTAAGGA	AGCAGACCCT	CTCTATGTCT	GGTTACAAGA	CCAGAAATCC	GGCCCACTAG	180
GAAAACGAGT	CGAATGGAAT	TTGCTAAGT	TTCTCATCGG	TCGAGATGGG	CAAGTCTTTG	240
AACGCTTTTC	TTCAAAAACA	GACCCAAAAC	AAATTGAAGA	GGCGATACAA	ACTCTACTAT	300
AATTCACAAT	CTCACTATGA	TTAGGTTTCC	TTTAACCTGA	TGAATAGTGA	GATTTTTTTGA	360
TGGGCTTTGA	CTTAAATAGA	AAAACACCCC	ATGATATGAA	ACATGAAGTG	TTGTAAAGTC	420
TATGTTGTAG	GTGCTTATTT	CACAATTTC	ATGTGACCAG	TGATAACGAA	TACCATACAG	480

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AATCTTCATA	TACACTAAAC	AAATGACTTT	CTAATTATTT	CAATTAGTTT	TGGCTAGTAA	540
ATATCATTTT	CAACAAACGC	CCTCTCAATT	CCTTATCCTG	ATGATGCAAG	ATATTCATTA	600
AGTCATGAGA	GTTTTTCGCA	TTGATGAATT	GATTTAACAA	TCTATCTTTT	AATTCATATG	660
GAAGAGAAGC	TGTCTTTAGT	AGTCTAAAAA	CTTCGTCATT	TAAAGATGTC	CTTTTATTAT	720
CTTTCCATTC	AAATTTAGCT	GTATCATTTCT	TATTTGGCAA	TTCAATTATA	GACACATTCG	780
TTCCTTTAAA	ATGAATTCTA	TGTTTTCTAT	TGCTTGGAAC	GATACTAGAA	TCTCCTTGTA	840
ATGCTAACTC	TACCATTTCC	ATTTCCCAAT	CGATTGATAA	TCTTGTTTTA	TATCTTTGAC	900
CATTTTGATC	TTCAAGCATT	TCAAAAGAAT	GTTGTTTTCC	TGGGAATACA	TACCAATCTA	960
CAACTTCAGG	TAAATCAACA	CCCATACCTA	TCTCAGAACC	AACCAAGGGA	ATGATTGCAC	1020
CACTTTTTGC	AAACACAGGC	GTAGTCGAGA	TGTCCCTATA	AACACTTAAC	TTCACACCAC	1080
CTGTGTATTT	TTTCTCTGAA	AAGAAGTCAT	ACCATTACAC	TTCAGGGAAC	CATACATCTA	1140
CTTTTGCAGA	TTGGAATGTC	AAATCCATCT	TTTCTACAAT	GGGAGCCACC	ATCAGTTCTG	1200
TTCCAAAAAA	GTATTGGTTT	GGAACATTAT	AGCTCTCATC	ATTCTCTGGA	TAGAAATAAT	1260
AGATTGGACT	GATTAATGGG	GCACCTTCCT	CATGTGTCTG	TACATTCATG	GTATATAGAT	1320
AGGGAATCAT	CTGATGTCTC	AAACGAAGGT	ATTTCTTCAT	AATCTTAGAT	GTTGTTTCTG	1380
AAAAAAACCA	AGGTTCTTTA	CTATTAAAAG	GACTTCTAGA	ACTATGTAAT	CGAGTAATCG	1440
GACTAAAAAC	ACCAAACGTG	AGCCATCTAG	TTTGTAGCTC	TTCGTCATAA	TCCCCCAACA	1500
TATGTCCACC	GATATCATGA	CTCCACCAAC	TATAACCGAT	ATTAGATGCT	GTCGCTGTAA	1560
AATAGGGTTG	AAATCTTAAG	GAATTCCAAC	TAATAATAGT	ATCCCCTGAA	AAACCAACAG	1620
GGTAGCGGTG	ACTACCAGGA	CCTGCATATC	TTGATAAAAT	CAAACCACCT	TCTGCATTTT	1680
TACAACTATC	CTGATAGTGA	TAATGGTTTA	AAAGCCAAAG	TGGATCTAGC	ATACCTTGTG	1740
TCCCTTGTTG	CCAGTCAATC	CACCAAAAAT	CTACTCCCTG	CTTTTCTAGT	TCATAATGAA	1800
CATCTTTAAA	GTAGGCTTCC	CTAAAAGAGG	GATTAAAAAA	ATCAAAAATA	GCAGGTCTTT	1860
CTAGTTCTAC	ATTTAACCCC	AACCGTTTTG	CGATTTGAGG	ATAAGCTTCT	TCATAAGCCC	1920
GTATCCCATC	AGCAGGATGG	ACATTTAAGG	AGAGTTTTAG	CTTTCTATCA	TGAAGTTGTT	1980
GCAATAACTG	TTCTGGATTT	GGTATTAAGT	TTCTATTCCA	ACTATATCCT	GTCCAGCCAC	2040
TTCCAAAGCG	AGCTGGAATG	TCAGTTATAT	GCCAATCCAT	ATCTAACACA	CCGATAGATA	2100
ATGGAATTTT	CTCTGTTTCA	AATCTGTCTA	TTAAATCCAA	GTATTCATCC	GACGTATAAG	2160
GCCAATATCT	ACTCCACCAA	TTGCCTAAAG	CATATCTTGG	CAACAAGGGT	GTTGAACCAG	2220
TCAAATGGTA	AAAATCTCTG	ATTGCTCCTC	TATAATCATG	CCCATAGGCA	AAGAAATACA	2280

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GGTCAATTTG	ATTTTCTCTC	TCAATATAAC	CAGATTGTTC	ATCCCAAATA	AATCCTTGAG	2340
AATCATCCAA	TAAGGCTATA	CCATTTTCGGC	TAATAATTCC	ATCTTCTAAC	GAGATTGCTC	2400
CATCTGCCTT	ATCCAGAGTC	CGAGCTGTTC	CTTTTAACGT	TTCAATAGAT	TCACCAAAT	2460
ACCAGCGACT	ACCATATACG	GCAAAATTTT	CTTTTAATTC	TATAAATAAA	TTTTCGGCGT	2520
TAAATTCTCC	TTTATTAAAG	TGCAGATGAA	AATAGTCCGT	CATAATATCT	AGTACGTTTG	2580
ATGTCTCGAT	ATAATCTAAC	GAAATTTGGC	CAAAATCTCT	ATTATAGATA	AGTTGTGTCG	2640
TTCTATCCTC	AAAACCTCCA	GTTTGAGAGT	ATTCTAACCT	TACTAGCTTG	TCTGTTAATA	2700
CAGAGATTCT	ATAAACTCT	CCCTTAAAA	TTTTCAATTT	GTTTTCCTCC	TTTTATGGTA	2760
GCATAAAAC	AGAACGCACC	ATTTTTGATG	CGTTTTTCAT	TATTCTGAAT	GCAATGTTCT	2820
ATCTGTTATA	TCTATGACAA	ATAATAGTCA	ATTGAAAAA	TGCAGTGGAC	AAAATATCTT	2880
TTAACAAACC	AAGAGTTTAT	TAAAGAGTTA	TCACTTTTCA	ACTTTTCTAA	GCTTATGCAG	2940
TTGTGAAACA	AACTACTTTT	AACTATTAA	CTAAGATAGG	ATTGATAAAT	AATTTCAAAC	3000
TCTTACTAGC	AATCATACGA	TATTCAAGCT	CACGTGCTTT	TTTCCTTCCT	GCTTATTTCT	3060
TAGAACTGAA	GAACCCGGAT	CGGTATATAA	ATTATCCGGA	TCAACATAGT	CATAAGATTC	3120
ATAACAGTTG	CGCTTCATTA	AGTCATCCCC	AGAGCAAGAG	CTTCATCTCG	TAATTTTTC	3180
ACATCACTAA	CCGTAGGTCG	CCATCCTTCA	ATCATATTTG	TACTTAAAGC	ATACCAAACA	3240
CTCTTAAAAA	CGGATCGGTT	TTCAAAAGCT	ATTCCCATGA	TTGTCATCTT	TTCTTTATCT	3300
ATATCTAAGG	ACATATGCTA	CCTCCTTTAG	ATACATTATA	CCATGTTTCT	CTGTAGCTTT	3360
TAAAAATTTT	ATTTTGTTTG	TCATATCTAA	GTTTTTCAGC	CGCTTATCCT	ATTTTATAAG	3420
CCTCAAACCC	AAATATAAAA	CGCATTCCTT	TTGCTTTTTT	ACTATTGTAT	CGTATTCTAC	3480
GATAACATAC	TTTACTTTAT	TGTTTTTTTA	AATAACAGCA	GTTCCCTGTT	TATCAACTAT	3540
TCGAACTACT	TTCTATTTTG	CTTCATACCC	TACATAGCGA	AAAAATATGA	AAAAGCAGAG	3600
AAGAATATCT	TAAAAAGACC	TCTTCACTGC	TAATATTAAC	ACTCATTATT	TAAACTATAT	3660
GGATTCTATC	ATCGAGTATA	CTTTTTTACT	TATTAGATAC	CTTGCTCTTC	TTTCACCAAT	3720
TTTTGATCAT	ATACACGGAT	GAATGGAAGA	TAGACTAGGA	ATGCTGCAAA	TGCACATACT	3780
AGAGCAACTA	ATACAGCTCG	AAGATCTGCT	GTCCCTAAGA	AAGCTCCAAT	CCCTACTGGA	3840
GTTGGCCATG	GAACCTGTGC	GATAATTGGC	TTAATAAAGT	TTAGAGAATT	CGCTACGTAA	3900
TAAATAGTAG	CAGTAACCAT	TGGTGCTAAA	ATAAATGGTA	TAGCCAAGGC	TGGATTATAG	3960
ATAATAGGTA	ATCCAAAAAT	TAATGGTTCA	TTAATATTAA	ATAAGGCTGG	AACTACAGAT	4020



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GCTCGTCCTA	TTGCTTTAAG	CTGTTTCAGAT	TTAGAGGCAA	AAGCAATATA	TAAACATAGT	4080
CCTAAAGTTG	CACCAGAACC	ACCTGCAATT	ACAAACATAT	TAGAAAATTC	ACCTGCAACA	4140
GCGAAGTGCC	CGCCAGCAGC	ATTTTCAGCC	ATGTTAGCAA	GAGCAATTGG	ACTAACAAAT	4200
GCAAAAACAA	TGTTTCGCACC	GTGGATACCT	ACAATCCAAA	GTAGTTGAGT	CAATAGATAA	4260
ATAATCATTA	AACCAATCCA	CGAATTAGTC	AGATTGGATA	CAAAACCAAA	TGGAATTGCA	4320
ATGACTTTAA	AAATATCTGT	TCCCATTGCT	ACAAGAAGAC	CGTTGATAAA	GATAACAACA	4380
AATGCAACAA	CAAATCCCGG	AACCAAAGCG	GTAAATCCAC	GAGAAACTCC	TTCTGGAACA	4440
GCTTCAGGCA	TTTTAATAAC	CCAATTATGT	TTAACACACA	TACGATAAAT	AAGAACAGTC	4500
ACAATTGCCA	TAATGATTGC	GGTAAAAATC	CCTGTTGTCC	CAAAACGTGC	GACTIONATTT	4560
CCCATTGCCC	ATCCATCTGC	AATTACTGCA	CCTTCTTTTA	GACTTGTCAC	AGTCTTCATC	4620
ATTCCACCAT	CAAAAATGAT	TTGCGGTACT	GTCATGACAA	AAGCCATCAA	GGCAAGCAAG	4680
GCACCATTAA	GAGGATTCAT	ATTGAGTTCT	TCTTCCTCTG	CATAAATTTT	TGTCAATTCA	4740
TATGCAAGTG	ATAGAACGAA	ATAAAGAGAT	AGAGAACCCA	TAGTCGCATA	GTTTGCAACC	4800
ATGTAAAGTG	ATGTGAATTT	ATCAAATGAA	GCAGAGAAAA	TATCTGCCAC	AATTGGCCAA	4860
AATGAGAAAG	CTTGTGGCAA	AATACTGAAT	ACCAAAAACA	TTGATCCTAC	AATAGTAAAT	4920
GGTACAGCAG	CCATACCTGC	AGCCGTGATA	GCACGTACTA	CTTTAAACTG	AGCAAGTTTG	4980
CCCATTGGTC	CCATAACATG	GTTTTCAAGA	AAACCAAACA	ACCCGTTTTG	TTGATCCATA	5040
AATAGACCTC	CTTAATAAAA	CATAATAATT	TTTACTTTCT	AAAGACTAGT	TTCAAATACA	5100
AATTATACTA	GATCAGGATT	ATAAACTAAG	TGAGTTCTTT	TCCAATTGGA	CAAATTGTTG	5160
ATAAGCCTTA	TCTGTTGTTT	TATAAATTTT	TTTAATTCTT	CTAATGTCTA	ACAAACTCAG	5220
AACTAAACCT	AATAGAAGAA	CTACAAAAAC	AAATAAACGT	GCTACTTGGT	TATTTTCAAA	5280
AATCGGAAAA	AGATTCTTAA	ACCAACTTGT	CCAAGTTAAA	ACAAGTAATC	CTATTGAAAT	5340
AAGCATTGTG	ATTCTAACAA	ACATTAGTGT	TATTCCTAAC	TTTTCTTTCC	TATTTCCAFA	5400
AAGTTTAAAT	TGTTCAACAG	TTGCTAAAAT	AGAAAATACT	ATGAGCATAA	TGGGGAAAAT	5460
AATAATAGGC	GAGGGACTAA	TAACTGACT	CAAAAGCCAA	TAAATATTCC	CAAAAAGAA	5520
GAGTGCTATT	GAATAACGTA	GAAGAAGATA	TCGATTGAAA	AAAGTATTAG	TTAGAGCCAT	5580
CTCTCGACGT	TGTTGTTCAA	TCTTTTGTCG	TTCTTTTTTA	TCCATATCAT	TTCCTCCTTA	5640
TATAACAACA	CATATTTAGT	TAACTTTCTT	ATAAAGAGCT	AACATTTCCCT	TTGCTACTTC	5700
TAATAATGTC	ATAGTGGTCA	TTAAATGATC	TTGAGCATGT	ACCATGATAA	TTTCAATTTT	5760
AATTTCCACT	CCACTTGCGT	ATTCTTGCAA	GAGTTTGGTT	TGTGCATGAT	GCGCTTCAAG	5820

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AATTATCTCA	TTTGATTGAT	TTAATTTACT	TTCTGCATCA	TCAAAACTAC	CTTCTCTCAT	5880
TTTTGCAAAAT	GCTTCATGTA	TTTCTGACCT	TGCATTTCCC	GAATGCAGGA	TAATTTCAAA	5940
TGCTGCAACC	TGCAGTTCCT	CTTGATTCAT	ATAAACCTCC	TATTTTATCT	TCTCAAATAT	6000
GTAAATAAAA	TCTTCAAAGT	TATTGCAAGA	TATTAGCTGA	TTTTGCAATT	CATCATTCCTC	6060
TGTCAGAGAG	ACTATCTTTT	TAGTCACAGT	TGCCAAACCT	TCGTTCCCAT	ATATTGATGG	6120
AGATAGAAGA	AATACTAGCT	GGACATGTGA	ACTTTGATTA	TCCCAGAGTA	ACGAATCTTT	6180
ACAAATTGCA	ACCGAAACCT	TTCCCTCTGT	ACCAAAGGGC	TGAATAGGAT	GCGGAACTGC	6240
AATTTTTTCA	GAAAAACAA	CTGAACTTAA	TTCTTCGCGC	TGTTTAATTC	CATAAAGTAA	6300
AGATTGTTCA	AACTCATTTG	ATTCACCAAC	AGATAAACTC	TCAACCATCT	TTTCAAGTAA	6360
ATTTACCTTG	TCTGATTCAG	TACATATTAA	AAAGTTTCT	TTACTAAAAT	ACTGTCTAAA	6420
GCCGTTGTTT	TCAAATTTGT	TAATCTTTGA	TGATTGTACA	TAAGTAGAAA	CTTGCACTTA	6480
ATCCATAGCT	TTTCTAATCA	TTTCCATCTC	ATCACTCTTA	AGAAACACAC	TAACCTTAAA	6540
AACTGGGATT	TGAAAATATA	GATTTGATAA	ATCAATAGCT	GACACTATAA	AATCTATTCC	6600
TTTAAGTTTT	TCTTGATTCA	ATTCATAGTA	GCCTATTACA	TCAACAACCT	CTACTCGCTT	6660
CCCAAACCTC	GTTTCCAAAC	GATTTCTTAA	CATTTGGGCT	GCACCAAATC	CTGTTGCACA	6720
AATAGCAAGA	ATATTAAACT	TAGTACTCTC	TTTGCTACGT	TCCATAGCAG	CTAAAAAGTG	6780
AAGACTTACA	TATGCTACTT	CATCATCTGA	TATTGTCCAC	TCCAAGAACT	TGTCCATATT	6840
TGCAAGAATT	TCTCTAGTCA	TAAAGAATAT	ATCACTATAA	TTCTGTTTAA	TTTCATCTAC	6900
CAAAGGGTTA	TTTAAGGTAA	TCCGGCTTTC	TAAACGTACT	TGTAGTGTCA	TTAGATGAGT	6960
TATCAATCCT	TCAATTAGTT	GGAAATCTGA	AGAAAAGTTA	TACATATCAT	CTAATCCTAA	7020
ATTCTGAAAT	GTTTTAAATA	AAGATTTTTT	TAAAACCTCT	TCAGAAATAT	TCTTCTGATT	7080
TTTTTGACAT	TGTTGACTCT	TAGCTAACAA	ATGCAAAGTA	ATGTAGTCTA	TTTCCTGAAC	7140
TGGAATTCC	TGATTTGTTA	CTTCTCTTAC	TTTAGAAAGA	ATTCTTTGGG	CAACCTTTCT	7200
CTCTATTGCA	TCATCAGTCA	TCTGACAGTC	TATATTTTTT	ATTTCAAATC	CGGATTTTAA	7260
ACGAATCACA	GACAATGCTA	TGTGAACTAC	TAAATTCTGT	AGTACAAAAT	CAGATAGTTT	7320
TAGGTTGGCC	TCTTGGCATT	CATCCAAAAC	AATTCTAGCA	AATTCTTCTA	ATGGAACAGT	7380
TTGATCAAAA	AAGTTAAATT	TTACATAGCA	ATGTATTGTT	TTAAAAAATT	GATTCTCTAG	7440
GAAATAATTT	ATGATAAAAC	GTCGTTTATC	ACGTTCCCTCG	CCTGAGACAT	AAACTCCTTT	7500
ATTCGCCCTA	CTCTCAATGG	ACAAATTATA	CTCTGATAAC	ATCACTCGTA	TCTTTCTGAA	7560

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ATCATGAGAT	AATGTTGAAC	GACTAACGTA	AAGTTCATCA	GCTAAATCAT	CAAAAAGAAC	7620
TGGAAC TTGC	TCAAATAATA	ATTTATTTAA	GATAAATACT	AAACGATCAT	CACCTTTTGA	7680
AACCGCAGTT	TTCGTATAGT	CTTCTTCCAG	TTCATAAGTT	TGTCTAAACT	CCTGGTAAGC	7740
GCCTTGATTC	TCAAAAATA	TTTGATACCC	TTGACCTTGT	TTTGAAATCA	ACCGGACTCC	7800
TTGAATAATC	ATTGTCTTCT	CAATTAATTT	CAGTACATTA	CGGACAGTTC	TATCTGAACA	7860
GGATAAATAT	TCTGCCAGTT	CTTTGCTTGT	AACAAAACGT	TCCTTATTTT	TTATTAAAAA	7920
TTGAAGGATA	TCTTTCTCTT	TAATGTTTAA	CACATTCATT	CCCTCCTAAA	ACGTATGTTT	7980
TCATATATTG	AAGCATATTA	TACACTTAAA	TCAGTTTATA	TCAAACCTCA	AACAATTTAT	8040
CTTAACCTAA	ATATTTATTG	ACATTTTCATG	TGTTTCATCA	ATATTCTCAA	GAATCAAATT	8100
AGCCATTTTT	TCAATTCCCA	TTGGAATAGG	AATATAGGCT	TGAGGAGGTA	TTTGTACAAC	8160
TGGTTTTTCCT	GCTTTAGAAC	CAGCCTCTTC	AAATTGCTTA	AAGTACATTT	TTGTTTGAGG	8220
ACTGACAAGA	TACAAATCAA	AAGCTGCTGC	TGCGATAGCT	TTCCCTCCTT	CAGTAGCACT	8280
AATAGCATCA	ACTACAATAT	CTTTCCCTTT	TCCTTTTAGA	AACTCTGTTG	TTTTCTGTGC	8340
CATAAGTGAT	GAAGACATTC	CTGCTGCACA	AATAATTAAA	GCTTTTGCCA	TAATATTTTC	8400
TCCTTTTCTT	AAATCCAATC	AAAGCTGTGC	TAAGTTGGCT	TATTTGTTAT	CTATTTTAT	8460
TATAAAATAA	AGCGTTTCCA	ATGACAATTC	CCTCATTTTC	CTAAATGATA	TGGAAAAAAA	8520
TTATTTATAC	TTCAATTTAT	AAAATAAAAT	TATTCCTGAG	AGTAGAAATG	AAACACTATT	8580
TGCTAAATC	AAAGGCAAGT	CTCCTATACG	AATACCATGA	GCAAGCCACA	ATGCAATACC	8640
AATAACTTGC	ATAACATACA	TACCTAGAGC	AATAGATCCT	GTGTCCTTTG	TCTTAACTAC	8700
ACGAAAAACT	TGTGGTAAAA	ATGCAAATGT	TGTTAAATTT	GCTGCAATAC	TTCCAATCAT	8760
ATGTCACCTC	AATATGCTAA	ACAACTGAG	AATAATCTCA	GTTTGTTTAT	ACTATTCTAC	8820
TGATTCACCG	TTAGATGAAA	TAACCTCCTT	ATACCAGCCA	AAAGATTTTT	TCGGGGAACG	8880
ATTATAACTT	CCCTTCCCAT	TATCATCTTT	ATCTACATAA	ATAAAGCCAT	AACGTTTCCG	8940
CATTTACCG	GTACCAGCTG	AAACCAAATC	AATACATCCC	CATGGAGTAT	AACCCATTAA	9000
ATCAACACCA	TCTTCAACTA	CAGCCTTTTT	CATTTACGTA	ATATGGGCAC	CTAGATATTC	9060
AATTCCTATA	TCATCATGTA	CCATACCATC	TGCTGCAACT	TGATCTATAG	CTCCAAAACC	9120
ATTTTCAACA	ATAAAGAGTG	GTAAGTGATA	GTGGTCTGTA	AACCAATTTA	ACGCATAACG	9180
CAAACCTTCT	GGATCAATTT	GCCACTCCCA	TTCAGAAGCC	TTAACATAAT	TATTTTTCAC	9240
TAAATCTTCT	GTTTCAAGAT	AATCAAAATA	AGGATTATTT	TCACGATGAG	AGTCGATAGC	9300
AAAGGACATA	TAGTAACTGA	AACCAATGTA	ATCTACAGTC	CCACCAAGTA	AATCTTCTTT	9360

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ATCCTGGGCA	GTAAAATCAA	CTGAAATACC	TTTTTCGTTCC	CAATACTTGA	AAATATGCTC	9420
AGGATATTTA	CCTAAAACAT	GCACATCAGC	AAAATAATAA	CGCTTCTGCA	TAGCTTTCAT	9480
TGCCATTAAG	ATATCCTTAG	GATTGCAAGT	AACTGGATAA	ATTGGACACA	TCGCAATCAT	9540
ACAACCTATT	TGAAAATCTG	GATTAATCTC	ATGACCAATT	TTTACAGCTC	GTGCAGAAGC	9600
AACTAATTCG	TAATGTGCTG	CTTGATACAT	AATTGCTTCT	CTATTATCAC	CTTCCTCATA	9660
TACAATACCT	GAGTTAGTAA	ATGGTGCAAA	ATCTTCCTGA	TAATTCGCTT	GATTATTGAT	9720
TTCATTGAAA	GTCATCCAAT	ATTTAACCTT	ATCTTTGTAA	CGTTTAAATA	CGACTTCTGC	9780
AAAACGAGCA	AAGAAATCAA	TCAATTTCCT	ATTTTTCCAA	CCACCATATT	CGGTCACTAA	9840
GTGATAAGGC	ATTTCAAAAT	GAGATAGAGT	GATGACAGGT	TCAATACCAT	TCTTTAAGCA	9900
TTCATCAAAA	AGATTATCAT	AAAACGTGTA	TCCTTCTTCA	TTCCGGCTCTA	ACTCATCACC	9960
TTTTTGAAAG	ATACGTGTCC	ATGCAATAGA	GGTACGGAAG	CACTTGAATC	CCATTTCAGC	10020
AAAAAGTGCT	ATATCTTCTT	TATAACGGTG	ATAAAAATCT	ATCGCCTCAT	GATTTGGATA	10080
ATATTTACCC	TCTAAAACCTC	CCAAAGTAAT	TTACAGAGCT	ACTCCATGAC	GACCAGCAGT	10140
CATAACATCA	GCAACACTAA	TTCCCTTGCC	ACCTTCTTGC	CATCCACCTT	CAAGTTGATG	10200
AGCAGCAACA	GCACCACCCC	ATAAAAATCC	ATCTTTAAAA	GTAGTCATCT	TTTTTCCTCC	10260
TGACTTTGAT	ACTCTTATTA	TAAACCTTAA	ACCAAAAGAT	GAAAACGCAT	TCTTTTTCCT	10320
TATTGTTAAG	GAAAGAAGTA	ATTTTAAATG	GAAATAGAAC	AATATCTTCT	TGTATTCTCG	10380
TAATGATATC	TTTACGATTT	TCAATACTTT	CAAACTACAA	AAACTCTCAC	AATAATTCTA	10440
ATTCCCTGTG	TCTATAAACG	ACTTATCGCT	TTCTGGCATC	CCAGAATCAT	CTTCTATATA	10500
ACGTTCAACT	TGCATCTGCA	AGTGATATTT	TTTTCTTAAA	TCTAAGATTT	TCTGCATTGT	10560
CTTTGATTGA	TAATGTTTAT	CTAAAGTTTC	TTGATTTATC	CACTGATCAA	TAAGGAGAAT	10620
AGTTCCCTCT	TTTTCAATTG	GTAAAAAATA	TTCGTATTTT	AAGTTACCTT	TTTGATTTCT	10680
AATTTCTTTA	ACAAGGCCAC	TATCAAGCAT	TTCTCTTGCA	AACTTTATTG	CACTATCTCC	10740
ATCACCTTTA	TAATATACAT	GAATAGTCAA	TGTCATCTTA	TATCCTCCAA	AATCATCCTT	10800
CAATTTTAAA	AAAACAAGTT	TAGATGAGGA	TCTAAACTTG	TTTTTTATGA	ACTAATTATC	10860
TAACGTTTCG	CCATTACTTT	CAATCACTTC	TTTATACCAA	TAAAATGATT	TTTTCTTATA	10920
GCGATTTATA	GTCAATTGAA	ACAAGAGCAG	GACAAAAGAG	CCTCATAAAA	GGTATTGCAA	10980
CTTGGAATA	CCTTTTGGAG	GTGCTTTTGG	ATATGAGCCC	ATGTTTCTC	AATAGGATTG	11040
TACTCAGGTG	AGTAGGGAGG	AAGAGGTAAA	AGTTTATACC	CAAACTCTTC	ACACAAGAGT	11100



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TCTAGCTTCC	CCATTCTATG	GAATCTTGCA	TTATCCATAA	TAATAACCGA	TGGTGTGGTT	11160
AATGTTGGTA	AGAGAAACTT	CTGAAACCAA	GCTTCAAAAA	AGTCGCTCGT	CATCGTCTCT	11220
TCGTAAGTCA	TTGGAGCGAT	TAACTCACCA	TTTGTTAGAC	CTGCAACCAA	AGAAATCCTC	11280
TGATATCTTC	TTCCAGATAC	TTT				11303

(2) INFORMATION FOR SEQ ID NO: 116:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3112 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 116:

CCTTAGATTT	CCACTTGCCA	GAGGAATTGA	TTGCCCAAAC	GCCCCTTGAA	AAACGTGATG	60
CCTCCAAACT	CCTCATCGTC	AACCGTGAGA	CAGGAGAAAT	GCAAGATAAA	CATTTCCACT	120
CTATTATTGA	TATGCTGGAA	CCTGGTGATG	CCCTTGTCAT	GAACGACACC	CGAGTTCTCC	180
CTGCCCCGCT	CTATGGTCAA	AAAGTGGAGA	CAGGAGGTCA	TGTGGAACTT	CTCCTCCTTA	240
AGAACACTAG	TGGAGACGAG	TGGGAAGTTC	TGGCTAAACC	TGCCAAACGC	CTCAAGGTCG	300
GTACTCGTAT	CAGCTTTGGT	GATGGCCGCC	TCAGCGCTGT	CGTTACAGAA	GAATTGACCC	360
ACGGGGGACG	CATTGTCCGC	TTTGAATACC	AAGGAATTTT	CCTAGAAGTC	TTGGAAAGTC	420
TGGGAGAAAT	GCCTCTGCCA	CCTTATATCC	ACGAAAAATT	AGATGACCGT	GAACGTTATC	480
AAACCGTCTA	CGCCAAGGAA	AGTGGCTCTG	CTGCAGCACC	GACTGCTGGT	CTTCACTTCA	540
CCAAAGAACT	GCTGGCAGAA	ATCCAAGCTA	AGGGTGTTCA	TCTAGTCTAT	CTGACTCTCC	600
ATGTCGGACT	CGGAACCTTT	AGACCTGTTT	CTGTGGATAA	TCTGGACGAA	CACGAAATGC	660
ACTCAGAGTT	CTATCAACTT	TCTGAGGAAG	CTGCTGCCAC	CCTTCGCTCT	GTCAAAAAAA	720
ATGGTGGTCG	TGTCATCGCT	GTCGGAACCA	CTTCTATCCG	CACCTTGGA	ACTATTGGTT	780
CCAAGTTTGA	TGGGCAAATC	CAAGCAGATT	CTGGTTGGAC	CAATATCTTT	ATCAAACCTG	840
GGTATGAGTG	GAAGGTCGTG	GATGCCTTCT	CAACCAACTT	CCACCTGCCA	AAATCAACTC	900
TGGTCATGTT	GGTTTCTGCC	TTTGCAGGCC	GTGAATTAGT	CTTAGATGCC	TACCACCATT	960
CCATCCAAGA	ACACTACCGC	TTCTTCAGTT	TTGGTGACGC	CATGTTTATT	TATTGAGAAA	1020
GAATTTCTCT	AAATCTTCTA	ATACCAATAA	ATCGCTAAGA	TATTATTTCA	AAGAACATCT	1080
ACAATTGAAA	CTCTAGCTAG	CTGTAGAAGA	GGCCTAGTAC	ATTGAAATTA	AAATGCTTCC	1140
CCCTAGCTTC	GAAAATATTG	CCATAGATTG	CGTTGACTCT	CCAAATTGAT	TCATCTATAT	1200

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TTTATTTTCAG	CTTCCTATAC	TTTCTTCGCT	GTTTGTAAT	CAAAATGCAA	GACACATGAG	1260
TAGCACCATA	TTTGTTACTC	TTATCTGTCC	TCTCAAGAGA	CTATTATGAG	TTATTTTCAGA	1320
ATCATTCACT	ACTTTGACCC	TGACTCTCCT	TAGTCTCAAA	ATCAAAGACT	TATACTCTTC	1380
AAAAATCTCT	TCAAACCGCG	TCAACGTCAC	CTTGGATTAT	ATATGTGatC	TGaCTTCGTC	1440
AGTTCTATCT	ACAACCTCAA	AGCAGTACTT	TGAGCAACCT	GCGACTAGTT	TTCTAGTTTG	1500
CTCTTTGATT	TTCATTGAGT	ATTAAACAAA	AAGTGAACAA	ATCTGAATTC	TAATGTACAG	1560
AAGACTAGGC	TTGTTCACTT	TTTTATAGTC	GCTATAAGAT	GACCTTATCT	ATAGCTTTTT	1620
ATATATAATT	ATATATTCAG	ACATACTATT	ATCAATTTTG	TCGCAGGGAG	GAATCTGTTA	1680
ACGCACCCAT	TCACCATTAT	CATTGACTCT	ATAGCCATCT	ATACTTGTAT	TGACCGCTAA	1740
CTCACCCGAT	GTATTTACAT	AATACCATTT	ACCACCAACT	TGGAACCATT	GATTGACTTT	1800
CATAGAACCG	TTGCTGTTGA	GGTAGTACCA	TGAACATTA	ACTTGTACCC	AACCTGTTGC	1860
CATGGAACCA	TCAGTATTAT	AAAAATACCA	CATACCATTT	TCTTGTTTCC	AGTCTGTTGT	1920
TGGAGCAACT	GCTTTAGCTG	GTTCTACTGC	TACATCTGTT	CCTTGGTTAG	ATGTAACAGA	1980
TACAGGATAC	GAAGGAATAG	ATGATTGCTC	AGGAACAACA	ACTTTTTCAG	GTTCTCTCGT	2040
CCCTCTCCTT	ATACGTCTTT	TTACCATCTC	TTTAGTAATT	TGACGAGAAG	TAGTTTCTTC	2100
AATTGTTCCA	TCACGTTTAT	CTACAGTATA	GATTGTAAGT	AGAGTAATTT	ACCAATTTCT	2160
CCTACTTCTT	CTACTTCTTG	ACTTTTATCA	AGAGTTGGGC	CATCGAGATA	TTCTGTTTCG	2220
ATTGGAATTT	CTTGGACAAG	AACTTGGGGC	TTGGTTCTTT	TTTTAACAAC	TCTTGTTTGA	2280
GAGTCTTTTT	TTTGACTTAA	AGTACTCTCA	GTTACTTGTC	CACTCTTTCC	ATCTACATTA	2340
TAAGTTATCG	TTGTAAGTGT	TTTCCCATTC	TTTCCTAGAG	TAATCTCTTG	CTCCTGTCCT	2400
GCAGAAAGGT	CATTGTCTGC	TTCATATTTA	GTAACAAATG	GAACAAGAAC	TTCTTCAACC	2460
TTGCTTTTAG	CTGGAACCTT	GATAACTGTA	TCCGTGGCTT	CTTTTCTATC	AACAGTAACC	2520
TGTTTCGGTAA	CATAACCAGT	CTCTGGATTA	ACATCGTAGG	TCCTTGTCGT	AGTTACATAG	2580
CCATCCTCTC	CATCAATTGT	AACAGGATTT	TCACTACGGT	CTTTTGTTTC	ATCTTTTTCA	2640
TAACGAATTC	GCGTACTTGA	AATTTTCTTG	GTTACTACCT	TAGGTTTAGT	CGCTACTTTT	2700
ACAATAATAT	CCCCATTGTC	AGCGTCATCA	TACTCTATTC	CCTCTTCTTT	ATCTCTAGTA	2760
TCATCTCTGA	CATATTGAAT	CCCATCAGCA	GCATGAACAA	AACTTGATTT	CAGATTCCTC	2820
CTAAAAATAA	AGTTAGCCCG	ATTACCGCAG	AACCAAAAAAT	CTTTCCGAGT	TTACGTATTG	2880
CATAGCGCTT	ATTAGTATTA	GATTTTGCCA	TTACATCCTA	CTTCTAGTAT	AGCATCTTTT	2940

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CTATCAAACG TTAAACAATA TACGTTATAT ATAAAATAGA CTTAGAATGA TATATTGATT	3000
ATTGAACTAA CACTTTAACT ATATCGTAAT CAATCTCATA TATAAAGGAT TGCAGACATC	3060
TTATCTAAAT ACATGCGAAT ATATTTAGAT ACAAACATTC CAACTTGATA AT	3112

(2) INFORMATION FOR SEQ ID NO: 117:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4327 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 117:

CCCAAAAATC TCTTCAAACC ACGTCAGCTT CGCCTTGCCG TAGTATGGTT ACTGACTTCG	60
TCAGTTCTAT CCACAACCTC AAAACAGTGT TTTGAGCATC ATGCgGCTAG CTTCTTAGTT	120
TGCTCTTTGA TTTTCATTGA GTATAAAAC AGATGAGTTT CTGTTTCTT TTTATGGACT	180
ATAAATGTTT AGCTGAAACT ACTTTCAAGG ACATTATTAT ATAAAAGAAT TTTTGAAC	240
TAAAATCTAC TATATTACAC TATATTGAAA GCGTTTAAA AATGAGGTAT AATAAATTTA	300
CTAACGCTTA TAAAAAGTGA TAGAATCTAT TTTTATGTAT ATTTAAAGAT AGATTGCTGT	360
AAAAATAGTA GTAGCTATGC GAAATAACAG ATAGAGAGAA GGGATTGAAG CTTAGAAAAG	420
GGGAATAATA TGATATTTAA GGCATTCAAG ACAAAAAAGC AGAGAAAAAG ACAAGTTGAA	480
CTACTTTTGA CAGTTTTTTT CGACAGTTTT CTGATTGATT TATTTCTTCA CTTATTTGGG	540
ATTGTCCCCT TTAAGCTGGA TAAGATTCTG ATTGTGAGCT TGATTATATT TCCCATTATT	600
TCTACAAGTA TTTATGCTTA TGAAAAGCTA TTTGAAAAAG TGTTGATAA GGATTGAGCA	660
GGAAGTATGG TGTAATAGC ATAGGCTGAT GTCCATCATT TGCTTATAAA GAGATATTTT	720
AGTTTAATTG CAGCGGTGTC CTGGTAGATA AACTAGATTG GCAGGAGTCT GATTGGAGAA	780
AGGAGAGGGG AAAATTGGCA CCAATTTGAG ATAGTTTGTT TAGTTCATTT TTGTCATTTA	840
AATGAACTGT AGTAAAAGAA AGTTAATAAA AGACAAACTA AGTGCATTTT CTGGAGTAAA	900
TGTCTTATTT CAGAAATCGG GATATAGATA TAGAGAGGAT CAGTATGAAT CGGAGTGTTT	960
AAGAACGTAA GTGTCGTTAT AGCATTAGGA AACTATCGGT AGGAGCGGTT TCTATGATTG	1020
TAGGAGCAGT GGTATTTGGA ACGTCTCCTG TTTTAGCTCA AGAAGGGGCA AGTGAGCAAC	1080
CTCTGGCAAA TGAAACTCAA CTTTCGGGGG AGAGCTCAAC CCTAACTGAT ACAGAAAAGA	1140
GCCAGCCTTC TTCAGAGACT GAACTTTCTG GCAATAAGCA AGAACAAGAA AGGAAAGATA	1200
AGCAAGAAGA AAAAATTCCA AGAGATTACT ATGCACGAGA TTTGGAAAAT GTCGAAACAG	1260

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TGATAGAAAA	AGAAGATGTT	GAAACCAATG	CTTCAAATGG	TCAGAGAGTT	GATTTATCAA	1320
GTGAACTAGA	TAAACTAAAG	AAACTTGAAA	ACGCAACAGT	TCACATGGAG	TTTAAGCCAG	1380
ATGCCAAGGC	CCCAGCATTG	TATAATCTCT	TTTCTGTGTC	AAGTGCTACT	AAAAAAGATG	1440
AGTACTTCAC	TATGGCAGTT	TACAATAATA	CTGCTACTCT	AGAGGGGCGT	GGTTCGGATG	1500
GGAAACAGTT	TTACAATAAT	TACAACGATG	CACCCTTAAA	AGTTAAACCA	GGTCAGTGGA	1560
ATTCTGTGAC	TTTCACAGTT	GAAAAACCGA	CAGCAGAACT	ACCTAAAGGC	CGAGTGCGCC	1620
TCTACGTAAA	CGGGGTATTA	TCTCGAACAA	GTCTGAGATC	TGGCAATTTT	ATTAAAGATA	1680
TGCCAGATGT	AACGCATGTG	CAAATCGGAG	CAACCAAGCG	TGCCAACAAAT	ACGGTTTGGG	1740
GGTCAAATCT	ACAGATTCGG	AATCTCACTG	TGTATAATCG	TGCTTTAACA	CCAGAAGAGG	1800
TACAAAAACG	TAGTCAACTT	TTTAAACGCT	CAGATTTAGA	AAAAAACTA	CCTGAAGGAG	1860
CGGCTTTAAC	AGAGAAAACG	GACATATTCG	AAAGCGGGCG	TAACGGTAAC	CCAAATAAAG	1920
ATGGAATCAA	GAGTTATCGT	ATTCCAGCAC	TTCTCAAGAC	AGATAAAGGA	ACTTTGATCG	1980
CAGGTGCAGA	TGAACGCCGT	CTCCATTCTG	GTGACTGGGG	TGATATCGGT	ATGGTCATCA	2040
GACGTAGTGA	AGATAATGGT	AAAACCTGGG	GTGACCGAGT	AACCATTACC	AACTTACGTG	2100
ACAATCCAAA	AGCTTCTGAC	CCATCGATCG	GTTCACCAGT	GAATATCGAT	ATGGTGTTGG	2160
TTCAAGATCC	TGAAACCAAA	CGAATCTTTT	CTATCTATGA	CATGTTCCCA	GAAGGGAAGG	2220
GAATCTTTGG	AATGTCTTCA	CAAAAAGAAG	AAGCCTACAA	AAAAATCGAT	GGAAAAACCT	2280
ATCAAATCCT	CTACCGTGAA	GGAGAAAAGG	GAGCTTATAC	CATTCGAGAA	AATGGTACTG	2340
TCTATACACC	AGATGGTAAG	GCGACAGACT	ATCGCGTTGT	TGTAGATCCT	GTAAACCAG	2400
CCTATAGCGA	CAAGGGTGAT	CTATACAAGG	GTGACCAATT	ACTAGGAAAT	ATCTACTTCA	2460
CAACAAACAA	AACTTCTCCA	TTTAGAATTG	CCAAGGATAG	CTATCTATGG	ATGTCCTACA	2520
GTGATGACGA	CGGGAAGACA	TGGTCAGCTC	CTCAAGATAT	TACTCCGATG	GTCAAAGCCG	2580
ATTGGATGAA	ATTCTTGGGT	GTAGGTCCTG	GAACAGGAAT	TGTACTTCGG	AATGGGCCTC	2640
ACAAGGGACG	GATTTTGATA	CCGGTTTATA	CGACTAATAA	TGTATCTCAC	TTAGATGGCT	2700
CGCAATCTTC	TCGTGTCATC	TATTCAGATG	ATCATGGAAA	AACTTGGCAT	GCTGGAGAAG	2760
CGGTCAACGA	TAACCGTCAG	GTAGACGGTC	AAAAGATCCA	CTCTTCTACG	ATGAACAATA	2820
GACGTGCGCA	AAATACAGAA	TCAACGGTGG	TACAACTAAA	CAATGGAGAT	GTAAACTCT	2880
TTATGCGTGG	TTTGACTGGA	GATCTTCAGG	TTGCTACAAG	TAAAGACGGA	GGAGTGACTT	2940
GGGAGAAGGA	TATCAAACGT	TATCCACAGG	TTAAAGATGT	CTATGTTCAA	ATGTCTGCTA	3000



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TCCATACGAT GCACGAAGGA AAAGAATACA TCATCCTCAG TAATGCAGGT GGACCGAAAC	3060
GTGAAAATGG GATGGTCCAC TTGGCACGTG TCGAAGAAAA TGGTGAGTTG ACTTGGCTCA	3120
AACACAATCC AATTCAAAAA GGAGAGTTTG CCTATAATTC GCTCCAAGAA TTAGGAAATG	3180
GGGAGTATGG CATCTTGTAT GAACATACTG AAAAAGGACA AAATGCCTAT ACCCTATCAT	3240
TTAGAAAATT TAATTGGGAA TTTTGTAGCA AAAATCTGAT TTCTCCTACC GAAGCGAACT	3300
AGAGAGATGG GCAAAGGAGA GATGGGCAAA GGAGTTATTG GCTTGGAGTT CGACTCAGAA	3360
GTATTGGTCA ACAAGGCTCC AACCCTTCAA TTGGCAAATG GTAAACAGC GACTTTCCTA	3420
ACCCAGTATG ATAGCAAGAC CTTGTTGTTT GCAGTAGATA AGGAAGATAT CGGACAGGAA	3480
ATTATTGGTA TAGCTAAAGG AAGCATCGAA AGTATGCATA ATCTTCCTGT AAATCTAGCA	3540
GGTGCCAGAG TTCCTGGCGG AGTAAATGGT AGCAAAGCAG CGGTGCATGA AGTTCCAGAA	3600
TTTACAGGGG GAGTTAATGG TACAGAGCCA GCTGTTTCATG AAATCGCAGA GTATAAGGGA	3660
TCTGATTCGC TTGTAACCTCT TACTACAAAA AAAGATTATA CTTACAAAGC TCCTCTTGCT	3720
CAGCAGGCAC TTCCTGAAAC AGGAAACAAG GAGAGTGACC TCCTAGCTTC ACTAGGACTA	3780
ACAGCTTTCT TCCTTGGTCT GTTTACGCTA GGGAAAAAGA GAGAACAATA AGAGAAGAAT	3840
TCTAAACATT TGATTTTGTA AAAATGGCTC TTTGTCAACT GTAGTGGGTT GAAGTCAGCT	3900
AAGCTCGAGA AAGGACAAAT TTTGTCCTTT CTTTTTTGAT ATTCAGAGCG ATAAAAATCC	3960
GTTTTTTGAA GTTTTCAAAG TTCCGAAAC CAAAGGCATT GCGCTTGATA AGTTTGATGA	4020
GATTATTGGT CGCTTCCAAT TTGGCGTTAG AATAGTGTAG TTGAAGGGCG TTGACGATTT	4080
TCTCTTTGTC CTTTAGAAAG GTTTTAAAGA CAGTCTGAAA AAGAGGATGA ACCTGCTTTA	4140
GATTGTCCTC AATGAGTCCG AAAAATTTCT CCGGTTTCCTT ATTCTGAAAG TGAAACAGCA	4200
AGAGTTGATA GAGCTGATAG TGATGTTTCA AGTCTTGTGA ATAGCTCAAA AGCTTGTTTA	4260
AAATCTCTTT ATTGGTTAAA TGCATACGAA AAGTAGGGCG ATAAAAATGT TTATCGCTGA	4320
GTTTACG	4327

(2) INFORMATION FOR SEQ ID NO: 118:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 3521 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 118:

CTCTGGCCCT GCCACTCCAA CGTTTTGTCA GGGTGCTTTT TTCATAAAGG AGTTCTTATG	60
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TTAGATATCA AACGTATTCG TACAGATTTT GAAGCTGTCG CAGAAAAATT AGCTACACGT	120
GGTGTAGATG CTGCTGTCTT GAATGAAATG AAAGAAATCG ATGCTAAACG TCGTAACATC	180
TTGGTCAAGG TTGAAACTCT CAAAGCAGAA CGTAACACAG TTTCTGCTGA GATTGCCCAA	240
GCTAAGCGCA ACAAGGAAAA TACAGATGAC AAGATTGCTG CCATGCAAAA TCTATCTGCT	300
GAGGTAAAG CCTTGGATGC TGAATTGGCA GAAATCGATG CTAAATTGAC AGAATTTACA	360
ACGACTCTTC CAAATATCCC AGCTGACAGC GTTCCTGTTG GGGCTGACGA AGACGACAAT	420
GTGGAAGTTC GCCGTTGGGG TACTCCACGC GAGTTTGACT TCGAACCTAA AGCTCACTGG	480
GATCTCGGTG AAGACCTTGG TATCCTTGAC TGGGAACGCG GTGGTAAGGT AACAGGCGCT	540
CGCTTCCTCT TCTATAAAGG CCTCGGTGCT CGTTTGGAAC GTGCTATCTA CAACTTTATG	600
TTGGATGAAC ATGGAAAAGA AGGCTATACT GAAGTCATCA CACCTTACAT AGTCAACCAT	660
GATTCTATGT TTGGTACTGG TCAGTATCCA AAATTTAAGG AAGATACTTT TGAATCAGC	720
GATACCAACT TTGTCTTGAT TCCAACCTGCT GAAGTTCCTC TGACAAACTA CTACCGTGAT	780
GAAATCTTAG ACGGCAAAGA TCTTCCAATC TACTTCACTG CCATGAGTCC GTCATTCCGT	840
TCTGAGGCTG GTTCTGCCGG TCGTGATACG CGTGGCTTGA TCCGTTTGCA CCAATTCCAC	900
AAGGTTGAAA TGGTCAAATT TGCCAAACCA GAAGAATCTT ACGAAGAATT GGAAAAAATG	960
ACAGCCAACG CTGAAAACAT TCTTCAAAAA CTCAACCTTC CATACCGTGT CGTTGCTCTC	1020
TCTACTGGAG ATATGGGCTT CTCAGCTGCG AAGACTTACG ACTTGGGAAGT GTGGATTCCA	1080
GCACAAAACA ATTACCGTGA AATCTCAAGC TGTTCAAACA CAGAAGATTT CCAAGCCCGT	1140
CGTGCCCAA TCCGTTACCG TGATGAAGCA GATGGCAAGG TGAAACTCCT TCATACCTTG	1200
AACGGTCTG GACTTGCAGT TGGACGTACA GTGGCTGCAA TTCTTGAAAA TTACCAAAAT	1260
GAAGATGGTT CTGTGACCAT CCCAGAAGCA CTTCGTCCAT ACATGGGTGG AGCTGAAGTC	1320
ATCAAACCAT AAAAAATAAG GTTTAGCTAT TTCTAGCTAG ACCTTTTTTC GTAACCAAAT	1380
CAGATAAGCA CCTAGTACAA AGAATAAAAT AGTTAGGCAT ATAATGGTTT CAGCCAATAC	1440
CAGGTAATCC AGAAATGGAA GTTTCAAAAT TCCCTGAGCC ATCTTGAGCG AGGTCGCTGT	1500
GATAATGGTT GGGAAGGTGA GGGCTGAGAA GGCTGGTTGA AAACCTTGTT TTAAAATGTT	1560
GGGCAGACGA GTTAAAACAA AGAAAAAGAA GGATTGAGAA GCCAAAATCA TGACAATCAA	1620
GACCCAAGTC GGCAGGCTGG TTCCTCCTAC TCGAACTAGA GAAGCCAAGA GTAGAGAGAA	1680
AGGAGCACAG TAGATTCCTT CTTGTCCAAG CAAGGCTAGT GGGAGTGGAT GTTTCTTTAA	1740
ATCGCTATAA ATAAGGGGAT AGAGATAGAA GGTCAAGAGA AAACCAAAAC TCAAGGTCGC	1800

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ATAGGCAATT	TCGATAATAC	CTACCAGAGG	ATAGGTCAAG	GCAGCCACTG	CTATCCCCAC	1860
ATAGAGAACC	GTCCAGCTTG	GAGTGGCATG	AACCCCTCCG	CCTGGACAAG	CAAACCTTGAT	1920
GGTAAAACCA	GCAATCAAGG	TCAAATCCAA	GAGAAATGAA	AACCACCAA	TCCCTTGTGC	1980
TACCAAAGGA	AGATAAGAGA	ATACGCGAAA	GACATAGGTC	GATAAAATCA	TCCCAGCCAT	2040
AGGAAAGGTT	GCCATTCCTG	ACAAAAGAGG	GGGCTTGGTC	AATTCTTGCT	TGGTTTCTTT	2100
CCAATTAAAG	AGATGCAGAA	TTAGAAAGTA	AATCCATAAA	ACCAAACCAA	TCAGACTAAA	2160
AAGATGGGAT	AGAACCGGCA	ACGTATCTAA	AATAAGATTT	CCAGCTCCTG	CCAAACCTAG	2220
CAAACAACCT	GAAAATACTA	AGGGGAGTTT	TTTCATCCTA	ACCTCCAATA	ATCATGTTAG	2280
TTTCAGTATA	ACATAAAAGC	GCTTAAATGA	GGATTTAAAA	AAACGAGTCC	GCTTATTTCA	2340
GACTTCATTT	TACTCAGATA	TGAATTAGGC	ATAAGGTTGC	AATTCTGGAT	TAATTGGTGT	2400
ATTAGCTAAG	TTGTTGGCAT	AGTTACAGAG	GATTGCTAGG	CTGACACCAA	AAACCACATC	2460
CAAGGCATTT	TGTTGAGTGT	AGCCAGCTTC	TAAAACTCA	GACAAGGCTT	CATCTCCTAC	2520
ACGACCCTTG	GTATTGATAA	CTGCCAAGGT	AACTTAGCT	AGGGTATCCA	ATTTAGGATC	2580
TGTTTCAATT	GGAGTACGAT	TGCGAAGAGC	TTGAATCAAG	TCATCATTCA	TCTGGATTTG	2640
TTTGATGGAA	AAGGCTGTGT	GACCTGCGAC	ACAGAAGGCA	CAACCATTTG	TCACGGCTGC	2700
CGTGATTTGC	ACCACTTCAC	GCTCAACGGG	TGTCAGGCTG	TTGCGACGGT	GGATAGATGA	2760
GACAATTTGG	TAGGCTTCTA	AAACAGTCGG	GGCATTGGCC	AAGAGACCGA	TTAGGTGGG	2820
AATATAGCCA	TTGTTGTCTT	TTTCTACTGT	TTCAAGAATT	TCTTTCCTT	CTGCTGGTGC	2880
TGACTCTACT	GTATGGATAG	TAAATGTTGT	CATAAGATAC	CTCTTTCTT	ATTATTGACA	2940
CTAATATTAT	TGGAAAATCT	TATAAAATCC	TGATTCCTAA	GTTTATCTAA	GATAAAGCTT	3000
TATTCTCTCA	TAAGATTTTC	GTTGTTATAT	TAGTTTATCA	CACTTCCAAT	CACTTGTATA	3060
ATATATATTA	TATATCAGGC	TGATAAAAAT	TATTTATAGG	CAAAAAATC	ACACGAGCTG	3120
TGTGATTCCA	TTATTTGTCA	AAATACTTTT	TAGTTTCAGC	AATAACGACT	GGCGACAAGA	3180
CCAAGAGGGC	AATCAAGTTT	GGCAGAGCCA	TCAAGGCGTT	AACGATATCT	GCGATAATCC	3240
AGACCATATC	CAACTCGATA	AATCCTCCTA	ACAAGACCAT	GAGCACAAAA	ACCACACGGT	3300
AGAGCCAGAT	AAAGCGAACC	CCAAAGAGGA	ACTCAAAACA	GCGTTCTCCG	TAATAGTTCC	3360
AACCTAGAAT	CGTTGTAAAG	GCAAAAAGTA	CAAGGAAGAT	GGTCAAGAGA	GCAGGCCCAA	3420
AGTGTGAAAA	GTTTGTGAG	AAAGCTGACT	GAGTCAAGGC	AACCCCATTC	AAGTCACCGC	3480
TCCAAACTCC	AGTTACCAAG	ATGGTCAAAC	CAGTTAGAGT	A		3521

(2) INFORMATION FOR SEQ ID NO: 119:

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- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 1968 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 119:

AACCTGGGCA AGCAAGCTAA AAGCAATGGG ACCTGGAATC CTAATGGCAA CTGCCGCTGT	60
TGGAGGTTCC CACATTGTAT CCTCAACTCA AGCTGGCGGT TCTTACGGTT GGTCTCTACT	120
TCTCTTGGTC ATCTTAGCCA ATGTCTTTAA ATATCCATTT TTCCGTTTTG GTGCTGAATA	180
CACAGCTGAT ACTGGAAAGA CTTTGGTTGA AGGTTATGCC GAAAAAGGAA AACTCTATCT	240
CTGGATTTTC TTTATCCTCA ATGTCTTTTC GGCTATGGTC AACACGGCTG GTGTTGCCAT	300
TCTGTGCTCA GCTATCATCG CCAGTGCCTT CCCAATGATT GGACTTAGCA TTA CT CAGTG	360
GTCCCTCATT CTCGTTGCAA TCATTTGGGC TATGCTACTC TTTGGAGGCT ACAA ACTTTT	420
AGACGGCATG GTCAAATGGA TTATGTCTGC CTTAACCATT GCGACTGTTC TTGCAGTTAT	480
CATTGCGGCG GTCAAGCATC CAGAATACAG TTCTGATTTT GTCGAGAAGA CACCTTGGCA	540
AATGGCAGCT CTGCCCTTCA TCGTCTCCCT CCTAGGATGG ATGCCGGCTC CTATTGAAAT	600
TTCAGCCATC AATTCAC TTT GGTCAGCTGA AAAGAGAAAG ACCGTCAACT TTAACACAGA	660
AGACGCTCTG TTTGACTTTA AACTGGTTA TATTGGAACA GCTATCCTAG CCGTCTTCTT	720
TGTGGCACTG GGAGCACTGA TTCAGTATCC TACAGGGCAG GCGGTTGAAG CTGCTTCAGC	780
CAAATACATC TCTCAATTCG TGGGCATGTA TGCCTCTGTT CTTGGCGAAT GGTCCCGTTA	840
CTTGATTACC TTTATTGCCT TCCTCTGTAT CTTTGGAACA GTTATAACTG TTATCGATGG	900
CTATTCTCGC GTTAATCAGG AATCTCTCCG ACTGCTAATC AGTCAAAAAG AGGACAATCG	960
TAAATCTTTG AACATCTGGA TGACCATCAC TGCTATCATC GGTATCGTCA TTATCAAGTT	1020
CTTCGCTGGT CAGGTTTCAA CCATGCTCCG CTTTGCCATG ATTGGCTCTT TCCTGACAAC	1080
ACCTTTCTTT GCTCTTTTGA ATTACGCCTT GGTAACGCGT GAAAACAAAA ATCTTCCTTC	1140
TTGGCTCAAA CACCTTGCCA TTGCGGGATT GATTTTCCTC TTTGCTTCGC CATCTTCTTT	1200
ATCTACGCAC TCGCAATCGG AAAAGCAGGG TAAGGGACAA GCGCGAGATG AAGATAAGGT	1260
TTCAATTTCAA GAGAAAATTC AGCAAATATT TCTATGATAA AAAGCATAAG AACAAGGTTT	1320
TGAAGACCTG AACTTATGCT TTTTACGTT CTAAAGACT GTTTATACTC AAAAAACAGT	1380
TGAACAACCT CAACCACCTC TTATAAGAAC TTTATACTAT TCGAGAATCT CTTCAAACCA	1440



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CGTCAGCTCT	ATCTGCAACC	TCAAAGCTGT	GCTTTGAGCA	ACCTGCGACT	AGCTTCCTAG	1500
TTTGCTCTTT	GATTTTCATT	GAGTATTAAT	TCTCCTTTTC	CAACTCATAC	AAATCTGCGA	1560
TAAATAGCTGC	GACATGTTTG	ATATCTTCCA	GCATGCCTCG	CATTTCAAAG	TCAGCCAATA	1620
CAGGGAAGCC	AAAGCGTTGA	CTGTATTGCT	TGGCTGTTAG	GCAGTATTGG	TTATTAAAGT	1680
TACGATTTCC	TGACCCAACC	ACACCAAAC	ACTTACTAGC	ATTGTTACCA	TAGGCAATAA	1740
AATCTCCCAC	CGGTGTCGTC	AAAATCTCAA	CATCTCCGTT	ATCCACGCCA	TTCCCACCTT	1800
CGAGATAGGT	CGGCAAAAAA	GCGACATAGG	GATGGTCCAT	TTCATAGAAA	TTTTTGCTTT	1860
CCTTGACCAA	ATCCTTGATA	TGAATCTTTT	GAACCTCAAT	CCCTTTGTAC	TGGGACAAGA	1920
GATAGTCTTT	CAAGCGCGTC	ACAAAACCTT	CAGTGTTGCC	ACTCAAGG		1968

(2) INFORMATION FOR SEQ ID NO: 120:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7172 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 120:

CCGCATTTTT	TATCACTAGA	CTCGAGACAT	CTTTTGAGTG	GCTCTTGCTC	TCTGGTTTAA	60
TTTTCTTCCT	TGCTCAAGGA	CTCCTGCTAT	TTCTCTTGGT	CGTCCGACTC	AAACATCAAT	120
TCGCTGAGAT	TTATCCTCAA	ATCAATAAAA	AGATTCGCTT	CTACTATTTA	GGGGTTCTCA	180
CCATTGATTT	TCTATTTTTT	GTTCTCTTAG	CCTTCATTAG	TTCTCAGCGT	TTTTCATCTC	240
TTATGCCAAT	CATCACTGCT	TGCCATTCTA	CTTTTTATTA	TATGACAGCT	GACTACCTAA	300
GAGAAAATA	TCCAGACTTT	TACGACAAAC	ACATCTCTTT	ATGGGAGTGT	CTCTAAAGAA	360
AAGGAGGTTT	TAGCATGAAA	AAAATCATCT	TCATCAAAAC	CATTCAACTC	CTTGTCATTG	420
ATGGAATCAT	GCTGGCATTT	TTGACATTTA	AAAGGGGGCT	TACTTGGGAC	TGGATTTTGA	480
TTTATAGCGG	TTGGCTCATT	TTCTTTCATC	CTGTGCTATT	GACCTATCTT	TCAAACCAAC	540
TTTGTGACCA	CTTTAGTTAA	CTCTATTCCC	AGATTAGACC	GAGATTCTGG	CGTTTTGCTT	600
TACAAATTCT	CCTATGGGAT	AGCCTGATGA	TTCTCTCCTT	GGTGTCTTTA	AGTGATATTC	660
CACTTTTCCT	TCAGGGAAC	CTCCTCATCC	TAGGACATCT	CATCCCTTCC	TATCGCATCT	720
GCCAAAGCCT	GAAAAGAGAC	TTCCCCCAAG	CATATCAAGA	ACCGATTCTT	TTTTGGAGTA	780
TTTTATGATA	GATGAGAAAG	ACCAAGCCGA	CTGGGCTTGG	TCTTTCTTAT	CTCTTTTATG	840
TATCTAGGAT	AATGGTAACA	GGTCCATTAT	TAACCAGCTC	AACCTGCATA	TCTGCTCCAA	900

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AGATGCCTGT CTGAACGGGC ACTTCTTGCG CTAATTTTGT ATTGAAAGCA TCATAGAAGT	960
CTGATGCCAT ATCAGGTTTA GCTGCCCCTG TAAAGgCTGG ACGATTGCCT CTCTTAGTAT	1020
CCGCAAAGAG GGTAAACTGA GAAATAGAGA GGATTTCTCC TTCAATATCT TTGACAGACA	1080
GGTTCATCTT GCCTTCTGCG TCTGAAAAA TCCGCATATT GACCAGTTTT CTCACAGCAT	1140
AGTCCAAATC TTCCTCTTGG TCCTCTGGTC CAACACCAAC CAGCAATAAA AGTCCCTGAT	1200
TGATTTTTC CTGAATCTGG CCTTCTATAC TCACTTGGGC TTTTSTAACC CGTTGGATAA	1260
TGATTTTCAT AATAGCCTTT CTAGTAAGAG CTAGGACAAC TAGCCGTTGG TCCGTTTGAC	1320
AGAGTAAACT TCTGGCACAC TCTTAATTTT ATCGACAACC GTGGTCAGTG TAGAGAGGTT	1380
GGCAATACCG AAGgACACAT GGATATTAGC AAACCTCATA TCCTTG GTTG	1440
GACCGTTGAA ATATTCTTGG TTGTATTTGA AAGAACTTGC AGTACATCGT TCAACAGTCC	1500
TGTACGGTTG AGACCGTAGA TATCGATATG GGCCATATAC TCCTTATTTG AGCTAGGGTA	1560
CTGGTCTTCC CATTCCACAT CAAGGAGACG TTGCTCGTAG TTTTCTTGGG CACGCAGGTT	1620
CATACAGTCC ACACGGTGAA TAGCCACACC ACGACCCTTG GTAATGTAGC CAACAATATC	1680
GTCACCAGGC ACGGGGTAC AACACTTAGC AATCCGCACT AGGAGACCAG AAGCACCTTC	1740
AATAACCACT CCCCCCTCAT GCTTGACCTT GAGGGTTTCT TTATTTTCAA CCTTGACCTC	1800
GCCACCTTTG ACAAGCTCCT CTGCCCTCAGC TTTGGCCTTG GCACGCTCTT CCTCACGGCG	1860
TTCTTTTCA GTCAGACGGT TAAAGACGGT AATCGCACCG ATTTCCCCAA AACCAATGGC	1920
CGCAAAGAGG GAGTCTTCTG TCTTGTAAC TGTCTTTTGC AGAACTTGAT CCATGTGGCG	1980
CTTGTCCATA AATTTATTTG CCACATAGCC ATTTTCTTGG AACTGAGCCA TCAGCATCTC	2040
ACGACCCTTG TTGACAGACA ATTCCTTATC TTGGTTTTTA AAGAACTGGC GAATCTTATT	2100
GCGCGCCTTG CTAGTCTTGA CCATATTGAG CCAGTCACGG CTAGGTCCAA AGGAGTTCGG	2160
GTTGGCGATA ATTTCAACCT GATCCCCTGT CTTTAACTTG GTTGTCAAGT GAACCATGCG	2220
GCCATTGACC TTGGCACCAG TTGCTTTTTT ACCGACCCTG GTATGGATTT CGTAGGCAAA	2280
ATCAATCGGT CCTGAATCTT TGGGAAGGGA ACGGACAGCT CCATCTGGGG TAAAAACGTA	2340
AATCTCCTCA GCCAAATAGT TTTCTTAAC AGAGTCCACA AATTCCTTAG CATCATCAGC	2400
CTGGTCTTGG AGCTCCATCA TCTCCTTGAT CCAGTTCATT CCAATAGCTG ATTCCTTGCT	2460
GTAACTTGC CCCTTTATAC CTTTCTTATA AGCCCAGTGA GCCGCAACCC CGTACTCAGC	2520
CACCTCGTGC ATTTCTTGG TTCGAATCTG GAATTCAATC GGCCCTTTTG GTCCATAAAC	2580
AGTCGTATGG ATAGACTGAT AACCATGGC CTTGCGGTTG GCGATATAGT CTTTGAAGCG	2640

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ACCTGGCATC	GGTTTCCAAA	ATTCATGCAC	GTAACCAAGC	ATGGCATAAA	CATCACTTTG	2700
GGTATCTAAA	ATACAACGAA	TAGCAATCAG	ATCATAGATT	TCCTCAAACC	GTTTTCTCTT	2760
GTCCTGCATT	TTGCGGAAAA	TTGAGTAAAT	ATGCTTGGGA	CGACCATAAA	TCTTCCCTTT	2820
CAAGTGACGT	TCTGTCGTAT	ACTCCTCTAA	TTTTGTGACT	ACCTCATCCA	CCAAGGCCTC	2880
ACGCTCCCTG	CGCTTTTCCT	TCATCATATG	GGTAATCTTG	TAAAACTCCG	TTGGATTGAG	2940
ATAACGGAAA	GACAAGTCTT	CTAATTCCCA	TTTGACACTG	GAAATCCCCA	AACGATGGGC	3000
AAGCGGGGCA	TAGATTTCCA	TGGTTTCTTT	GGAAATACGC	TCCTGCTTGT	CTTTTCGAAG	3060
ATGTTTCAGG	GTCCGCATAT	TGTGCAAGCG	GTCAGACAGT	TTGACCAAAA	TAACGCGGAT	3120
GTCCTCAGAC	ATGGCCATGA	GCATCTTGCG	ATGATTTTCC	GCTAATTGCT	CCTCGATCGA	3180
TTTGTACTCG	ACCTTGCCAA	GCTTGGTAAC	TCCGTCAACA	ATCATCCGCA	CATCAGGACC	3240
AAACTCTCTT	TCCAAATCGT	CCAAAGTCGC	ATCTGTATCT	TCCACCACAT	CATGCAAGAA	3300
TCCACAAGCT	ACTGTTACAG	CATCCAGCTT	TAGCTTAGCT	AAAATACCTG	CCACTTGGAT	3360
AGGGTGAATG	ATATAAGGCT	CGCCTGATTT	GCGATATTGA	CCACTGTGGC	ATTCAACAGC	3420
ATAGACCAAG	GCCTTATGGA	CAAAATGAAC	ATCCTCTTCC	GTAAATATT	CTTTGGTTAA	3480
AGCGACAACT	TCTTCGCCTG	TTAAATTCAC	TTCTTTCGGC	ATCTCTACTC	TCCAATTCTT	3540
CCTACCATTT	TATCACTTTT	TTAAGAATAT	GAAAACTAGA	TTGGAACAGA	ATAAGAAAAA	3600
AATAATTCAA	AATTGCTTGA	TAATTCTGAA	TTATTGGTCC	GTAATATACT	ACGAAGTTAG	3660
ATTTTAAACT	TAGGTGATAG	AAGGAGAGAT	AGAAGAACGG	AAACCATATT	GTAACCCAAA	3720
GACTTTCTGA	CTTCCCCAAT	TCCATTGAAG	ATACGAAAGA	TAAACGGTGG	AACTCGTATC	3780
ACATACACTG	GTACCTTGAC	TGGATTTTGG	AATTAATACT	AAATGAAAAT	CAAAGAGCAA	3840
ACTAGGAAAC	TAGCCGCAGG	TTACTCAAAG	CACCGCTTTG	AGGTTGCAGA	TAAAGTTGAC	3900
GCGGTTTGAA	GAGATTTTGG	AAGAGTATAA	AAATCCTCAA	GATACTTTCT	TCTATCCTTT	3960
AGTTTATAAG	GAGAATACCT	ATGAAAAAAA	CTGCTATTTT	TATCTTTGCT	CTCCTAATGT	4020
TAGGAGTTTG	CTGCCTGTTC	CTATTCAGCC	AGCAAAGCTA	TAAAAAACAG	TCGTTCAATA	4080
CTATGCTAAC	GACCAGAACC	TGCCCAGTAG	GATAACTTAT	AGTGAATATA	GCGACAAATG	4140
AGAAGCCAAC	TACGGTAGCA	CTCTAAACAT	CACGTCTATC	AAACAAGCTA	ATGACGGAGT	4200
TTATGCAACC	TATGAAGGGC	AATTGACACC	TTTCCAATAT	TGATAAATTG	ATAACCAGCC	4260
TGTCTTCATC	TAGTCATGCT	GGTTTTTAAG	TTCATTTTAA	ATCCTTACCT	ATTCTCCCTA	4320
ACTGTGCTAT	ACTTAATTTA	TACTCAATGA	AAATCAAAGA	GCAAACCTAGA	AAGCTAGCCG	4380
CAGGCTGTTC	AAAGCACTGC	TTTGAGGTTG	CAGATAAAGT	TGACGCGGTT	TGAAGAGATT	4440

TTCGAAGAGT	ATTAGTACAT	TCTTTGAGAT	TGGAGCTAGT	ATGAAAATCC	ATAAAACCGT	4500
GAATCCTGTT	GCCTATGAAA	ATACCTATTA	TCTAGAAGGC	GAAAAGCACC	TCATCGTCGT	4560
CGATCCTGGT	AGTCATTGGG	AAGCCATTCT	TCAGACAATC	GAGAAGATCA	ACAAACCGAT	4620
CTGTGCTATT	CTCTTGACCC	ACGCCCATTA	TGACCATATC	ATGAGTCTGG	ACTTGGTTCG	4680
CGAGACGTTT	GGCAATCCTC	CTGTCTATAT	CGCAGAGAGC	GAAGCCAGCT	GGCTCTACAC	4740
TCCTGTGAT	AATCTCTCCG	GTCTCCCTCG	CCACGATGAT	ATGGCAGATG	TGGTCACAAA	4800
ACCTGCAGAA	CACACCTTTG	TCTTTCACGA	AGAATACCAA	CTAGAGGAAT	TTCGTTTAA	4860
GGTCTACCG	ACCCAGGGC	ACTCTATCGG	TGGTGTTTCC	CTAGTCTTTC	CTGATGCTCA	4920
TCTAGTCTTG	ACGGGAGATG	CTCTATTCCG	CGAAACTATC	GGACGGACCG	ACCTTCCGAC	4980
TGGTAGCATG	GAGCAACTCC	TTCATAGTAT	CCAGACCCAA	CTCTTCACCC	TACCAAATA	5040
CGATGTCTAT	CCAGGACATG	GTCCAGCTAC	TACTATCGCT	CACGAAAAGG	CCTTCAATCC	5100
CTTTTCTAG	CAAGATGATG	ACAATCGAAA	TTTAAGTAAA	CTATCCAGCA	AATCTTTCTA	5160
TTACAAAAGG	CATCCTATCA	AGGTTTTTAC	ACATGATTGG	ATGCCTTTTT	TCTGATGACT	5220
AGATTTTTTG	CATTACCAA	TAATCACGCG	CTCCTCTGGT	GAACGCCACA	TTCCGTCTCC	5280
TTCTTTGACA	TCATAGGTTG	TAAAGAAATC	GTCGAAGTTT	GGTACTTGCA	CATTGACACG	5340
GAGTTTGGCT	GGTGCGTGCA	CATCGACGCT	AGCCAAAAGT	TTCATAAATT	CTGGTTCGACC	5400
TTTCATGCGC	CAGATGCGAC	CGAAGTTGTA	GAAGAACTCT	TCTGCTGAGA	AGTCTGCTTC	5460
TCTCTTAGCT	GCTTCAAGCG	CTGCTGCGAT	TCCTCCCAAG	TCAGCCACGT	TTTCTGATAC	5520
AGTCAATTTA	CCGTTAATGG	TTGCTCCATA	AGAATCCTGT	CCATCAAATT	GGTCAATGAC	5580
TTTTTGTGTT	TTCTCCTTGA	AGGCAGCATA	GTCGCTCTCT	GTCCACCAAT	CCTTGAGGCT	5640
ACCATTTTTC	TCAAAGGAAG	CCCCGTTAGT	ATCAAAGGCG	TGGGAAATTT	CATGGGCAAT	5700
CACTGCCCCA	ATACCACCGT	AGTTAGCAGA	AGATGACTGA	TGCAAGTCAT	AGAAAGGCGC	5760
CTGTAAAATG	GCCGCTGGAA	AGACAATCAG	GTTCTTCTGA	GGATTGTAGT	AGGCATTGAC	5820
CATATGAGCA	GGCATGCCCC	ATTCCTTATA	ATCTACAGGC	TGGTTCCACT	TACTCCAAT	5880
GTGCTTGATT	TCCACACGCG	CAAAGGCTAG	AGCATTTCTCA	AAAAGACTGG	CAGTTTCATT	5940
CACTACCTTA	TCCTTGTAAC	GTGCAGGCAA	TTCTTCTGGA	TAGCCAATAT	AAGGTTTGAT	6000
CACATTGAGC	TTACGATAG	CCTGTTTACA	GGTTTCTGGA	GTGAGCCAGT	CATTCTTAAG	6060
CAGACGCTCC	TTATAAACAT	CAATCATGGT	TGCCACTTTT	TTCTCCACAT	CCGCCTTGGC	6120
TTCTGGAGAG	AACTTCTCAC	GGGCGTACCA	AAGACCCAGG	GCTTGCTTGA	AAGGTTCTTG	6180



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TGCTAGATGA TAAGCTGCTT TGACCTTATC TTTTGCCTCT GGAAGTCCAG AAAGGGCACG	6240
GCTGTAGGCA CCAGACAAAA CACGGATATC CTCTGTAAAA TAGCTGGTTG AAAGATTGAC	6300
AACACTCAAA ATCAAGGTTG CTTTAAGGAG AGACCAGGCT TCCTCACTGT AGAATTGCTC	6360
TGCTGCTTGC CAGAAACGTT CCTCGTCTAC AATAACCTTG TCTGGTAATT GCCCAATAAC	6420
TGCTTTGAAG AAGTCATCCA AAGGTAGGGC AGGCGCGAAT TTCTTGAAAT CTTCGTAAGA	6480
ATATGGATGA TAGAGTTTAG CATATTCTGA ACTTTCTTCA TTAGAGAGCA CCACTGCCGC	6540
AACTCGGCGG TCCAATTCAA GTCTTTTTTC TAGCAAGTCT TCAATTTCTT CATCAGAGAA	6600
ATCATAAGCC TTGAGGAGAT TTGCGCTGCT TTCTTTCCAA AGAGTCAAGA GCTCTTCGCG	6660
CTGAGGATGT TCTTCTGCAT AGTAGGTCGT ATCTGGCAAG ATTGTGCTTG GAGCGCTAGC	6720
CCATAGAACA TTGATTCTAG CATCCATAAA GTCTGGCGAT ACACCAAAAG GAAGGAAGTT	6780
TGGTTTTCTT GCAAGCTCAA ACTCTGCTAG TTTAGCTGTA AAATCCGCAA AAGTCTCCAA	6840
TTCTTGGAAT TCTTTAAGGA GTGGTAAGAC AGGTGTGATA CCGTCAGCTT CTCTCTTGTC	6900
AAAATCACGA ACTAGGCGGT GGTATTTGAC AAAGTTTTTC AAGATAGCAT CCTCAGGCAC	6960
TTCTTCACCT GCTAACCCT TGTCTGTTGT CGCCAGCATC AGGTCTTCAA TTTCCTGGTC	7020
TAAATCAACA AAACCTCCTG TTTGAGACTT ATCTGCTGGG ATTTTCAGCTG TCTGTTGCCA	7080
TTCTCCATTG ATAGCATCAT AAAAATCATC TTGATAACGT GTCATCTTGT TCTCGCTTTC	7140
ATTTGTATTT GCATTTATCT TAACAAAAAT CG	7172

(2) INFORMATION FOR SEQ ID NO: 121:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4518 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 121:

CGGGAAGTTA TGCGATCTAG ACTTCGTTCC TGTACAGCTA CTTTCTCAGG TGGTCTTGTT	60
GTTTGTATGA GTTTGTTTAG AGAGGATCTT TCTATGTCTT TCTTTCTTAT TTTTGTTTTA	120
TATGCTTTTC TGATTTCTTA TCTAATTTAT GGTTATTTCA GACTAAAAAG GAAATACCGA	180
GTAGATGAAT AGCAAGGTTT TAGGTCTTCA GATTGATTTT TAGCACTCTT GATAAAAGAG	240
TGCTAATTTT TTGAGTTTTT GTCTTGACAT TCTCTTCTAA GGGTGTATAA TAGAATCATG	300
AGTTAGCACT TGGATGCATT GAGTGCTAAT TGATCAGACA GAGAGGAGTG ATGAGATGGT	360
TACAGAGCGT CAGCAGGATA TTTTAAATCT GATTATTGAC ATCTTTACCA AAACGCACGA	420

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ACCTGTCGGA	TCAAAAGCCT	TGCAAGAGTC	TATTAACCTCT	AGCAGTGCAA	CCATTTCGTAA	480
TGACATGGCG	GAAC TAGAAA	AACAAGGGTT	GCTTGAGAAG	GCTCATACTT	CAAGTGGTCG	540
GATGCCAAGT	GTTGCTGGTT	TTCACTACTA	TGTGAAACAC	TCACTGGATT	TTGACCGGCT	600
GGCTGAAAAT	GAGGTATATG	AGATTGTCAA	AGCCTTTGAT	CAGGAATTCT	TCAAATTGGA	660
GGATATTCTG	CAAGAGGCTG	CTAACTTACT	AACAGACCTG	AGTGGCTGTA	CGGTAGTGGC	720
ACTGGATGTT	GAGCCGAGCA	GGCAACGTTT	GACAGCCTTT	GATATCGTTG	TTTTGGGGCA	780
ACATACAGCC	TTGGCGGTAT	TTACCCTAGA	CGAGTCGCGA	ACGGTTACTA	GTCAGTTTCT	840
GATTCCAAGG	AACTTCTTGC	AGGAGGATTT	GCTGAAACTG	AAGAGCATCA	TTCAGGAACG	900
TTTCCTCGGT	CACACCGTTT	TAGATATTCA	CTACAAGATT	CGGACGGAGA	TTCCGCAGAT	960
TATCCAGCGT	TACTTTACAA	CAACGGATAA	TGTCATCGAT	CTCTTTGAAC	ACATCTTTAA	1020
GGAAATGTTC	AACGAAAACA	TTGTGATGGC	GGGCAAGGTC	CATCTCTTGA	ATTTTGCCAA	1080
TCTAGCAGCC	TATCAGTTCT	TTGACCAACC	GCAAAAGGTG	GCCTTGAGAG	TTCGTGAGGG	1140
GTTGCGTGAG	GATCAGATGC	AAAATGTTCG	TGTTGCAGAC	GGTCAAGAGT	CCTGTTTAGC	1200
TGACCTAGCG	GTAATCAGTA	GTAAGTTCCT	CATTCCCTTAT	CGGGGAGTTG	GAATTCTAGC	1260
CATTATCGGT	CCAGTTAATC	TGGATTACCA	ACAGCTAATC	AATCAAGTCA	ATGTGGTCAA	1320
CCGTGTTTTG	ACCATGAAGT	TGACAGATTT	TTACCGCTAC	CTCAGCAGTA	ATCATTACGA	1380
AGTACATTAA	GATTGAAATC	ATTAAAGGAG	GCGAACATGG	CCCAAGATAT	AAAAAATGAA	1440
GAAGTAGAAG	AAGTTCAAGA	AGAGGAAGTT	GTGAAAACAG	CTGAAGAAAC	AACTCCTGAA	1500
AAGTCTGAGT	TGGACTTGGC	AAATGAACGT	GCAGATGAGT	TCGAAAACAA	ATATCTTCGC	1560
GCTCATGCAG	AAATGCAAAA	TATCCAACGC	CGTGCCAATG	AAGAACGTCA	AACTTGCAA	1620
CGTTATCGTA	GCCAGGACTT	GGCAAAAGCA	ATCTTACCAT	CTCTTGACAA	CCTTGAGCGT	1680
GCACTTGCA	TTGAAGGTTT	GACAGATGAT	GTGAAGAAGG	GCTTGGGGAT	GGTGCAAGAA	1740
AGCTTGATTC	ACGCTTTGAA	AGAAGAAGGA	ATTGAAGAAA	TCGCAGCAGA	TGGCGAATTT	1800
GACCATAACT	ACCATATGGC	CATCCAAACT	CTCCCAGCAG	ACGATGAACA	CCCAGTAGAT	1860
ACCATCGCTC	AAGTCTTTCA	AAAAGGCTAC	AAACTCCATG	ACCGCATCCT	ACGCCCAGCA	1920
ATGGTAGTGG	TGTATAACTA	AGATATAAAG	CCCGTAAAAA	GCTCGCAGTA	AAAATAGGAG	1980
ATTGACGAAG	TGTTTCGATG	ACACAAGAAA	ATCTATCTTT	TTTACTCAGA	GCTTAGGGCG	2040
TGTTTCGATTC	GGCAATTCTG	ACGGTAGCTA	AAGCAACTCG	TCAGAAAACG	GCAATCGCTA	2100
TGGCGTTTGC	CTAGCTTCCT	TACTAACTCG	TCGTCGAAAT	AAAATCGATT	TCGACTCCTC	2160

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GTGTCGCAAT	TTACATAATA	GAAAACTTGT	CCGAAACGAC	AATAAACTAT	GAAGAAAGAT	2220
AAAATATGTT	TGGCTTTGTA	ATAGTGAGCG	AAGCGAACCA	AACACGATAC	TCTTCGCCGT	2280
GGCGCTATTT	GCGCAAATTT	TGAGACCTTA	GGCTCAAAGT	TTAGTCAAAG	AGATTGACGA	2340
AGTCAAGCTC	TGACGGCGTC	GCCACTGTCT	CCACTTAAGA	AGAGTATCAA	AAAGAAAAAT	2400
AGAAAATTAA	CTAACAAGGA	GAAAAACACA	TGTCTAAAAT	TATCGGTATT	GACTTAGGTA	2460
CAACAACTC	AGCAGTTGCA	GTTCTTGAAG	GAAGTGAAG	CAAAATCATC	GCAAACCCAG	2520
AAGGAAACCG	CACAACTCCA	TCTGTAGTCT	CATTCAAAAA	CGGAGAAATC	ATCGTTGGTG	2580
ATGCTGCAAA	ACGTCAAGCA	GTTACAAACC	CAGATACAGT	TATCTCTATC	AAATCTAAGA	2640
TGGGAACTTC	TGAAAAAGTT	TCTGCAAATG	GAAAAGAATA	CACTCCACAA	GAAATCTCAG	2700
CTATGATCCT	TCAATACTTG	AAAGGCTACG	CTGAAGACTA	CCTTGGTGAG	AAAGTAACCA	2760
AAGCTGTTAT	CACAGTTCCG	GCTTACTTCA	ACGACGCTCA	ACGTCAAGCA	ACAAAAGACG	2820
CTGGTAAAAT	TGCTGGTCTT	GAAGTAGAAC	GTATTGTTAA	CGAACCAACT	GCAGCAGCTC	2880
TTGCTTATGG	TTTGGACAAG	ACTGACAAAG	AAGAAAAAAT	CTTGGTATTT	GACCTTGGTG	2940
GTGGTACATT	CGACGTCTCT	ATCCTTGAAT	TGGGTGACGG	TGTCTTCGAC	GTATTGTCAA	3000
CTGCAGGGGA	CAACAACTT	GGTGGTGACG	ACTTTGACCA	AAAAATCATT	GACCACTTGG	3060
TAGCAGAATT	CAAGAAAGAA	AACGGTATCG	ACTTGTCTAC	TGACAAGATG	GCAATGCAAC	3120
GTTTGAAAGA	TGCGGCTGAA	AAAGCGAAGA	AAGACCTTTC	TGGTGTAAGT	TCAACACAAA	3180
TCAGCTTGCC	ATTTATCACT	GCAGGTGAGG	CTGGACCTCT	TCACTTGGA	ATGACTTTGA	3240
CTCGTGCGAA	ATTTGACGAT	TTGACTCGTG	ACCTTGTTGA	ACGTACAAAA	GTTCCAGTTC	3300
GTCAAGCCCT	TTCAGATGCA	GTTTTGAGCT	TGTCAGAAAT	CGACGAAGTT	ATCCTTGTTG	3360
GTGGTTCAAC	TCGTATCCCT	GCCGTTGTTG	AAGCTGTTAA	AGCTGAAACT	GGTAAAGAAC	3420
CAAACAAATC	AGTAAACCCT	GATGAAGTAG	TTGCTATGGG	TGCGGCTATC	CAAGGTGGTG	3480
TGATTACTGG	TGATGTCAAG	GACGTTGTCC	TTCTTGATGT	AACGCCATTG	TCACTTGGTA	3540
TCGAAACAAT	GGGTGGAGTA	TTTACAAAAC	TTATCGATCG	CAACACTACA	ATCCCAACAT	3600
CTAAATCACA	AGTCTTCTCA	ACAGCAGCAG	ACAACCAACC	AGCCGTTGAT	ATCCACGTTT	3660
TTCAAGGTGA	ACGCCCAATG	GCAGCAGATA	ACAAGACTCT	TGGACGCTTC	CAATTGACTG	3720
ATATCCCAGC	TGCACCTCGT	GGAATTCCTC	AAATCGAAGT	AACATTTGAC	ATCGACAAGA	3780
ACGGTATCGT	GTCTGTTAAG	GCCAAAGACC	TTGGAACTCA	AAAAGAACAA	ACTATTGTCA	3840
TCCAATCGAA	CTCAGGTTTG	ACTGACGAAG	AAATCGACCG	CATGATGAAA	GATGCAGAAG	3900
CAAACGCTGA	AGCCGATAAG	AAACGTAAAG	AAGAAGTAGA	CCTTCGTAAT	GAAGTAGACC	3960

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AAGCAATCTT TGCGACTGAA AAGACAATCA AGGAAACTGA AGGTAAAGGC TTCGACGCAG	4020
AACGTGACGC TGCCCAAGCT GCCCTTGATG ACCTTAAGAA AGCTCAAGAA GACAACAAC	4080
TGGACGACAT GAAAACAAAA CTTGAAGCAT TGAACGAAAA AGCTCAAGGA CTTGCTGTTA	4140
AACTCTACGA ACAAGCCGCA GCAGCGCAAC AAGCTCAAGA AGGAGCAGAA GGCGCACAAG	4200
CAACAGGGAA CGCAGGCGAT GACGTCGTAG ACGGAGAGTT TACGGAAAAG TAAGATGAGT	4260
GTATTGGATG AAGAGTATCT AAAAAATACA CGAAAAGTTT ATAATGATTT TTGTAATCAA	4320
GCTGATAACT ATAGAACATC AAAAGATTTT ATTGATAATA TTCCAATAGA ATATTTAGCT	4380
AGATATAGAG AATTATATTA GCTGAACATG ATAGTTGTAT CAAAAATGAT GAAGCGGTAA	4440
GGAATTTTGT TACCTCAGTA TTGTTGTCTG CATTTGTATC GGCGATGGTA CCGTATCTGA	4500
CGAACGTTCA GCTTATAT	4518

(2) INFORMATION FOR SEQ ID NO: 122:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8145 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 122:

TGCTATTTTC GATTCCCTTG GCGGTTTTGA TTGCCTTTGC CTTGCAAGTC CATTGGAAGC	60
CCCTCCATTA TCTGATTAAC ATTTACATCT GGGTTATGCG AGGAACCCCC TTACTCTTGC	120
AACTGATTTT TATCTATTAT GTGCTCCCAA GTATTGGGAT TCGTTTAGAC CGCCTTCCTG	180
CAGCTATTAT TGCCTTTGTT CTCAACTATG CAGCTTACTT TGCAGAAATT TTCCGTGGGG	240
GAATTGACAC TATTCCAAGA GGACAGTATG AGGCCGCCAA GGTCTTGAAG TTTAGCCCTT	300
TTGACAGAGT GCGCTATATT ATCTTGCCCC AAGTGACCAA GATCGTTCTT CCTAGTGTCT	360
TTAATGAAGT TATGAGTTTG GTCAAGGATA CTTCTTTGGT CTATGCTCTC GGAATTTTCA	420
ACCTTATCTT GGCTAGTCGA ACAGCTGCTA ACCGCGATGC TAGTCTAGTT CCTATGTTCT	480
TGGCAGGAGC CATTTATTTG ATTTTGATTG GGATTGTGAC AATTATTTCC AAAAAAGTTG	540
AGAAGAAGTA TAGTTATTAT AGATAGGAGG CTGCCATGTT AGAATTACGA AATATCAATA	600
AAGTCTTTGG AGACAAACAA ATCCTGTCTA ATTTCACTCT AAGTATTCCT GAAAAGCAAA	660
TCCTGGCTAT CGTTGGACCT TCTGGTGGAG GTAAGACAAC TCTTTTACGT ATGCTTGCAG	720
GTCTTGAAAC CATTGATTCA GGGCAAATCT TTTATAATGG ACAACCTTTA GAGCTGGATG	780



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AATTGCAGAA	GCGCAATCTA	CTGGGATTTG	TCTTCCAAGA	TTTTCAACTA	TTTCCTCATC	840
TATCAGTTCT	GGAAAATTTG	ACTTTATCGC	CTGTGAAGAC	CATGGGAATG	AAGCAGGAAG	900
AGGCTGAGAA	GAAGGCGAGT	GGACTCTTGG	AACAGTTAGG	ACTAGGAGGA	CACGCAGAGG	960
CCTATCCTTT	CTCACTATCT	GGTGGGCAAA	AGCAGCGGGT	GGCTTTGGCG	CGTGCTATGA	1020
TGATTGACCC	AGAAATCATT	GGCTACGATG	AACCAACTTC	TGCCCTGGAT	CCAGAATTAC	1080
GTTTGGAAGT	GGAGAAGCTA	ATCTTGCAAA	ATAGGGAACT	TGGGATGACC	CAGATTGTGG	1140
TTACCCATGA	TTTGCAGTTT	GCTGAAAATA	TCGCAGATGT	ATTATTGAAA	GTAGAACCTA	1200
AATAGGAGGA	AAAATGGATG	AAAAAATGGA	TGCTTGTATT	AGTCAGTCTG	ATGACTGCTT	1260
TGTTCTTAGT	AGCTTGTGGG	AAAAATTCTA	GCGAAACTAG	TGGAGATAAT	TGGTCAAAGT	1320
ACCAGTCTAA	CAAGTCTATT	ACTATTGGAT	TTGATAGTAC	TTTTGTTCCTA	ATGGGATTTG	1380
CTCAGAAAGA	TGGTTCTTAT	GCAGGATTTG	ATATTGATTT	AGCTACAGCT	GTTTTTGAAA	1440
AATACGGAAT	CACGGTAAAT	TGGCAACCGA	TTGATTGGGA	TTTGAAAGAA	GCTGAATTGA	1500
CAAAAGGAAC	GATTGATCTG	ATTTGGAATG	GCTATTCCGC	TACAGACGAA	CGCCGTGAAA	1560
AGGTGGCTTT	CAGTAACTCA	TATATGAAGA	ATGAGCAGGT	ATTGGTTACG	AAGAAATCAT	1620
CTGGTATCAC	GA CTGCAAAG	GATATGACTG	GAAAGACATT	AGGAGCTCAA	GCTGGTTCAT	1680
CTGGTTATGC	GGACTTTGAA	GCAAATCCAG	AAATTTTGAA	GAATATTGTC	GCTAATAAGG	1740
AAGCGAATCA	ATACCAAACC	TTTAATGAAG	CCTTGATTGA	TTTGAAAAAC	GATCGAATTG	1800
ATGGTCTATT	GATTGACCGT	GTCTATGCAA	ACTATTATTT	AGAAGCAGAA	GGTGTTTTAA	1860
ACGATTATAA	TGTCTTTACA	GTTGGACTAG	AAACAGAAGC	TTTTGCGGTT	GGAGCCCGTA	1920
AGGAAGATAC	AAACTTGGTT	AAGAAGATAA	ATGAAGCTTT	TTCTAGTCTT	TACAAGGACG	1980
GCAAGTTCCA	AGAAATCAGC	CAAAAATGGT	TTGGAGAAGA	TGTAGCAACC	AAAGAAGTAA	2040
AAGAAGGACA	GTAAGATAAA	ATAGTGGCTG	AAACTGCGTT	TTGATTAGCA	AAACGTAGTT	2100
TTTTTTGTAA	TCTAGGAAAA	CGATAATAGC	GATTGAATAT	GGATAATTGA	ATATGGAATA	2160
GCCCACTGTG	ATTTCTAAAA	CATTGTAAAA	AATTGATTTG	ACTTCCAAAA	TTAAAATGTT	2220
CTGTAATGAA	ATACTGATGT	AACTGTTTTA	GGAACAATAA	AACGCATAAT	ATCAAGGTTT	2280
TTGCACCTTA	CATTATGCGT	TTTTGTGATT	TTAAGACTTG	TTAGCTGATT	TTTTACAATC	2340
CTGCGAAATC	TTTGATTTCT	TGTGCTGACA	TTGAAGAGTC	GCAACGGACG	TTGATTTGTC	2400
CATCTGTAAT	ATGAACAAAA	CCTGGTACAG	TTGGGATTCC	ATAGCGTGAG	CGGAATGCTT	2460
GCAAATCATT	GAGTTGGCTT	GGTTCTTCAC	TATTGATGAA	GTAAATGTGA	GCTTTGGTTT	2520
CAGCTACGAC	ACCTGACAAT	GTACCTGCAA	ATTTACGGCA	GTAAGGGCAA	GTTTTGCGAC	2580

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CGATAAAGAA	GGTTGCAGTT	TCTTTTTTAT	CAAGAGCTTC	TTGCGCACGC	ACAACTGTAG	2640
TGACTTCAAG	GTCTTTGATG	TTATCTAAAA	ATTGTTCCAT	GAGATTACCT	CGCTTTCATT	2700
GATAAGTCTA	GTATGCCATA	AAGTTTCTAA	AATTGCTTAG	ATTTGATACG	AAAAAAGATG	2760
AGGTTGGTTG	GTCTCATCTT	TTATAGGTCT	TTATTTTACA	AATGCATTGA	TTTCTGCTTC	2820
GATGTTAGCA	ATCTTAGCTT	GTGATTCTTC	GTTGGTTTCC	CCTACAACCTG	CAATGTAGAA	2880
CTTGATTTTT	GGTCTGTAC	CTGAAGGGCG	AACGGCAATC	CATGAACCGT	CAGCAAGTGT	2940
GTATTTCAAC	ACATCACTTG	GAGGAGTTGT	CAAGTTTGTA	ACAGTACCGT	CAGCAACAGT	3000
AGCAGTTTGT	GCCTTGAAGT	CTTCTACGAC	AGTGATAGCT	GTTGCGTTCC	ATTCTGTTGG	3060
AGCATTGTTG	CGGAATTTAG	CCATAATCGC	TTTGATTTGT	TCAGCACCAT	CGACACCTGA	3120
AAGAGTAACA	GAGATTGTTT	TTTCTGCGTA	GTAGCCATAT	TCTTTATAGA	TTTCTTCGAT	3180
ACCGTCAGCA	AGTGTCAAAC	CACGAGAACG	GTAGTAGGCA	GCAAGTTCAG	CAACTACAAG	3240
AACGGCTTGG	ATGGCATCTT	TATCACGTAC	AAATGGTTTA	ATCAAGTAAC	CGAAGCTTTC	3300
TTCAAATCCC	ATCATGTAAG	TGTGGTTGTG	TTTTTCTTCG	AATTCTTGGA	TTTTTTCAGC	3360
GATAAATTTG	AAACCTGTCA	AGACGTTGAA	CATAGTTGCG	CCGTAGCTTT	CAGCAATCTT	3420
CGTTACCAAG	TCAGTTGAAA	CGATAGATTT	GCAGAGAGCG	GCATTTTCAG	GAAGAGTTCC	3480
AGCGTTTTTG	TGAGCTTCCA	AGATGTATTT	AGCCATGATA	GCACCGATTT	GGTTACCTGA	3540
AAGGTTGAGG	TAGCTACCAT	CTTTTTGAAG	AACCTCAACA	CCAACACGGT	CAGCGTCTGG	3600
GTCAGTTGCG	ACAAGAACAT	CTGCACCAAC	TTGACGACCA	AGTTC TTCAG	CAAGGGCAAA	3660
GGCTGCTTGG	CTTCTGGGT	TTGGAGATGT	TACAGTTGAA	AAGTCTGGGT	CAGCAGTTGC	3720
TTGCGCTTCA	ACAACTTGAA	CAGAGTCAAA	TCCTGCTTGG	GCAAGAGCAC	GACGAGCCAA	3780
CATTTCACCA	GTACCATGAA	GTGGTGTGTA	GACAATCTTC	ATGTCTTTAC	CAAATTCTTC	3840
AATCAAGGCT	GGGTTGATGT	TTATGTCCTT	AACCTCTTTA	AGGTATTCTA	TGTCAACAGC	3900
TTCGCCGATA	ACTTCAATCA	AGCCAGAAGC	TTTTTCAGTT	TCCACATCAG	CAACTTCAAC	3960
TGCAAATGGG	TTTTCGATTG	CACGGATATA	AGTAGTCAAA	GCGTCCGCAT	CGTGTGGAGG	4020
CATTTGTCCA	CCGTCTTCAC	CGTAAACCTT	GTAACCGTTA	AATGGAGCAG	GGTGTGGCT	4080
GGCTGTGACC	ATGATACCTG	CGAAACAGTT	GAGATGACGA	ACTGCAAATG	ATAGTTCTGG	4140
AGTCGGACGA	AGGCTTTCAA	ATACGTAAGA	TTTGATGCCG	TGTTTAGCAA	GAAGTCCCGC	4200
AGATTCAAAG	GCAAAC TCAG	GTGAGAAGTG	ACGGCTATCG	TAGGCAATTG	CTACACCGCG	4260
TTCTTTCTCG	TTTCCACCTT	TTGACTCAAT	CAAACGAGCC	AATCCTTCAG	TAGCTTGGCG	4320

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AACAACGTAG	ATGTTGATAC	GGTTTGTACC	AGCACCAACC	AAGCCACGCA	TACCTGCAGT	4380
ACCAAATTCA	AGATTTGTAT	AGAAGGCATC	TTCCTTAGTT	TTTTTCGTCCA	TATTTTCCAA	4440
ATCTTGACGA	AGGTAGTCAC	GAAGCTCCAC	AAAATCAACC	CATTTCTGGT	AATTTTCTTG	4500
GTAAGACATT	CAAATTCTCC	TTTATTTTTTA	AAACATTTAA	TCAGTTTAAT	TATATCATTT	4560
TTTTTAGTTT	TAGTAAAACC	TTATCTGCTT	CGAACATCTC	TTCAAACCAG	GTCAGATTGA	4620
ATTTTGGGGT	TATATGATGT	TGAGGCTAGG	AAAAATTCAA	TTTCAGTAAA	AAAAGTAAGT	4680
CTTCTCATAA	CAAAACATTG	ATATAGTTAC	TTAGTTTTTAA	ACAAGCATAT	TATAATAAAG	4740
CTATGGCATA	TAGTACTGAT	TTTAAACAGC	GAGCATTAGA	TTACATCAAA	GAGGGGCACA	4800
GCCATGTCTGA	GGCAGCCAAG	TTTTTTGGTG	TTGGCGTCAG	AACTCTCTTC	ACGTGGGAAA	4860
AGAAAGACGT	GAACAAGAAC	ACATAGAGAG	GAAAAAGCGA	GTCGTCAAAA	ACCGAAAGAT	4920
TCCTTTAGAG	GAATTGAAAG	CCTTTGTAGA	GGCTCATCCA	GATGCTTTTTT	TACGGGAAAT	4980
TGCGGCACAT	TTTGATTGTG	CTGTTCCCTC	AGTATGGGCA	GCTTTAAAGC	AGATTAAGGT	5040
CACTTTAAAA	AAAGATGACG	AGCTTTAAGG	AACAAGACCC	AGAAAAGTAG	CCTTATTTCT	5100
TAAGAATTTT	AATAGTTTAA	AGCACCTAGC	ACCTGTTTAT	ATTGATGAAA	CAGGAATCGA	5160
CCGCTATCTC	TATCGTCCTT	ATGCAGGGGC	TCCTAGAGGG	GAGAAAGTCT	ATGAAAAGAT	5220
TAGCGGACGT	CGTTTTGAGC	GAAC TTCAAT	TGTTGCAGGA	CAAGTAGACG	GAGAGTTTAT	5280
AGCTCCCATG	ATTTACAAGA	AAAGCATGAC	AAGCGATTTT	TTTGTGGAGT	GGTTCAAAAC	5340
GCAACTCCTA	CCTGCTTTGA	AGACACCTCA	TGTTATTGTC	ATGGGCAATG	CTGGTTTTCA	5400
TCCCAAGAAC	ATTTTGATG	AACTCTGCAT	CCAAGATAAA	CACTTTTTTCT	TACCTCTACC	5460
ACCTTATTCA	CCGGATTGTA	ATCCTATTGA	GCAAGCTTGG	GCTATCTTGA	AAAAGAAAGT	5520
GACGGATGTA	TTAAGGGAAG	TTCCAACAT	TTTTGAATGT	TTGGAATGCT	TTTTTAAAC	5580
TAGATGACTA	TAACGGTTCT	AAAGGAACCT	ATCGAGTAGT	CATTAAAACT	AAGGATACTG	5640
CTGGTTAAGA	GAAGACGGTA	TACAATCAAA	CCATTCACCG	TGTAGCCGAA	ATCGTTCAGA	5700
ATGAAGACTT	GTATCAGAAT	GAAGACTTGT	ATAAGAAAGG	TTTGAATGTT	GAAC TTGCGC	5760
ACCAACAAAT	TAAGGGATTT	TTTGAAGCAG	AGTTTAAAAA	TCGTATTAAT	GGAGTTCTTA	5820
ATACTAAAAT	AAAAAATAGT	ACATTAAATC	GTGTAAATAA	AAAAACTATA	CACCAGAGCA	5880
ACAAAAACTC	CATGATCAAT	TTGAAGCAGA	AGCAACGGAA	GATGCTAAAA	AACAAGGCGA	5940
TATTGTGTTG	AATGTTGACC	AGGATTTTCAT	GAGCATATCT	AAGTCTAATA	AAAGTGGTTC	6000
AGACTGGAAG	AAAAC TTTCA	CAGTGAGGAT	AACCAATAGG	CTAGCAAATG	ACTTGAATAA	6060
TGTCTTGAAA	CAGGTTGATA	AAGATACTCC	TAATACCCCA	ACTTGGCTAA	ACTCAGCTGC	6120

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TTCTAAAGCT	AAAGATGATG	ACAGAGTATA	TAAACTACTG	AAGACTCTTA	TACCAGGAGA	6180
AAATTACCTA	TCATGTTAAG	GATAATCAGC	TAGAAGTAGA	AACAGATAAA	TACACATATA	6240
CTGCCGCTAG	AAATGGTAGT	AAGGAAGTTG	GTATTCAAGA	GTCAGATATA	GCAGCAACTC	6300
TAAGTGCCGA	TGAATATAAT	TCTAATCGCC	AAACTTTTGA	GAGAGAATAC	AAATACAAAA	6360
GCAAATGCCC	TTAATAATGG	TTGGGCTAGA	TCTGGTTCTG	AAGAGTTCAA	AAAGTTCTCC	6420
CACTTTGTAG	GGGTAGACAA	AGGGATTGTG	CGAACGAATG	TACTGACTGG	TAAAAAACTA	6480
TCTGATAAGA	TTAGGAAAGA	AGTGGGCTCT	GGAGATAGCA	AACTAGGAAA	AGGCGGCTAT	6540
TTCTCTACTG	GGGATGTTCT	ATTAGGAAAA	GATGTTGTTT	CTTATACCGT	ACAAGTATTT	6600
TCAGAGAATA	ATGAAAGAGT	AGGAGTAAAC	ACTCAAAGTC	ACCGTGTTCA	GTATAATCTC	6660
CCAATTCTAG	CTGACTTTTC	AGTCATCCAA	GATACTGTGG	AACCATCACG	AACCGTTGTT	6720
GAAAAAATCA	TTCCAAAAC	AAATATTCCC	GAAGAAGAGA	AAGGGAAAA	AACCGAAGAA	6780
ATCAAGAAAA	AGAAAAAAC	CTCAGAATTG	GCAGAACTAA	TCTCAGAAAA	TGTGAAAGTT	6840
CGCTATGTTG	ATGAACAAGG	GCGTTTGCTA	TCATTGAAAA	ATGATACTGG	AATTGGAGAA	6900
AAAGAAAGTG	ACGGAACCTA	CATTACCAAT	AAAAACAAC	TGATTGGTAC	CAGCTATAAT	6960
GTCACAGATA	AAAAACTCAG	TAGCATGACT	ACTACTGACG	GAAAATATTA	TACTTTTAAA	7020
GAAGCAGATA	CAAATTCTGC	AAGTTTAACT	GGGAATATTG	TAAGCGAAGG	TAGAACAGTG	7080
ACCTTAGTTT	ATAGAGAAAG	CGAAGCGCCA	ACCACTGCTA	CAGTAACAGC	CAATTACTAT	7140
AAAGAAGGTA	GGCAAGAGAA	GTTGGTAGAG	TCTGTTATAA	AAGCTGATTT	AGCGATAGGT	7200
TCTGAGTATA	CCACAGAATC	AAAAACTATT	GAAGGGAAAA	CAACAACTGA	GGACAAAGAA	7260
GACCGAGTTA	TCACAAGGAA	AACAACATAC	ACCTTGGTAG	CAACTCCTGA	AAATGCGTAC	7320
CAGAAGACGG	TGCAACAGTT	GACTATTACT	ACCGTGAGAA	TGTTGAGGAA	ACAGTGGTTC	7380
CCAAAACAGC	AACCTCTACT	GAGACGAAGA	CTATAACGCG	TATCATT CAT	TACGTTGATA	7440
AAGTTACGAA	CCAAAATGTA	AAAGAAGATG	TTGTTCAACC	TGTAACCTTA	AGCCGTACAA	7500
AAACTGAGAA	CAAGGTCACG	GGAGTTGTAA	CCTACGGTGA	ATGGACAACA	GGAAACTGGG	7560
ACGAGGTTAT	ATCTGGTAAG	ATTGACAAGT	ACAAAGATCC	AGATATTCCA	ACAGTTGAAT	7620
CACAAGAAGT	TACGTCAGAC	TCTAGTGATA	AAGAAATAAC	GGTAAGGTAT	GACCGTTTAT	7680
CAACACCAGA	AAAACCAATC	CCACAACCAA	ATCCAGAGCA	TCCAAGTGTT	CCGACACCAA	7740
ACCCAGAACT	ACCAAATCAA	GAGACTCCAA	CACCAGATAA	ACCAACTCCA	GAACCAGGTA	7800
CTCCAAAAAC	TGAAACTCCA	GTGAATCCAG	ACCCAGAAGT	TCCGACTTAT	GAGACAGGTA	7860



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AGAGAGAGGA ATTGCCAAAC ACAGGTACAG AAGCTAATGC TACCTTGGCT AGTGCTGGTA	7920
TCATGACCTT GTTAGCTGGT CTAGGATTAG GATTTTTCAG GAAAAAGAA GATGAAAAAT	7980
AATAGATTTT AGAATCTAGG AACCAGGAAA AGCTCACAGA TGTGGGCTTT TTTCCTGGTT	8040
TTGAGAACGA GGTCTTTCGT AAAGAATAAA AACGCTTACA AGTCTGTTGA ACTGGGAAAC	8100
TATGAATCCT ATTTTTTTAA AAATATTTCC AGAAATCAGT TGC GG	8145

(2) INFORMATION FOR SEQ ID NO: 123:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8697 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 123:

CGGTACCGGG AACGATACTT AGTCTAATTT TGCACCTTTT CCATGTATGG TAAAGGTTTT	60
TCTTTTTTTA AAAAGGAAAA CGAGAAGAGG AGGTTCTTAT GAAAGCAAGC ATTGCCTTGC	120
AAGTTTACC CCTAGTACAG GGGATTGATC GGATAGCTGT TATTGATCAG GTCATTGCTT	180
ATCTGCAwAC TCAAGAAGTG ACGATGGTAG TGACACCATT TGAAACGGTC TTGGAAGGGG	240
AGTTTGATGA GCTTATGCGC ATTCTAAAAG AAGCGCTGGA AGTGGCAGGG CAGGAGGCAG	300
ACAATGTCTT TGCCAATGTC AAAATAAATG TAGGAGAGAT TTAAAGTATT GATGAGAAAC	360
TTGAGAAGTA TACTGAGACG ACACATTAGT CTATTGGGCT TTCTCGGAGT ATTGTCAATC	420
TGGCAGTTAG CAGGTTTTCT TAAACTTCTC CCCAAGTTTA TCCTGCCGAC ACCTCTTGAA	480
ATTCTCCAGC CCTTTGTTCTG TGACAGAGAA TTTCTCTGGC ACCATAGCTG GGCGACCTTG	540
AGAGTGGCTT TACTGGGGCT GATTTTGGGA GTTTTGATTG CCTGTCTTAT GGCTGTGCTC	600
ATGGATAGTT TGA CT TGGCT CAATGACCTG ATTTACCCTA TGATGGTGGT CATTGAGACC	660
ATTCCGACCA TTGCCATAGC TCCTATCCTG GTCTTGTGGC TAGGTTATGG GATTTTGCCC	720
AAGATTGTCT TGATTATCTT AACGACAACC TTTCCCATCA TCGTTAGTAT TTTGGACGGT	780
TTTAGGCATT GCGACAAGGA TATGCTGACC TTGTTTAGTC TGATGCGGGC CAAGCCTTGG	840
CAAATCCTGT GGCATTTTAA AATCCCAGTT AGCCTGCCTT ACTTTTATGC AGGTCTGAGG	900
GTCAGTGTCT CCTACGCCTT TATCACAACT GTGGTATCTG AGTGGTTGGG AGGTTTTGAA	960
GGTCTTGGTG TTTATATGAT TCAGTCTAAA AACTGTTTC AGTATGATAC CATGTTTGCC	1020
ATTATTATTC TGGTGTGCGAT TATCAGTCTT TTGGGTATGA AGCTGGTCGA TATCAGTGAA	1080
AAATATGTGA TTAAATGGAA ACGTTCGTAG AATTAGAATG TTTCTGAAAA AGAAAAGAGG	1140

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AAATCAAAAT	GAAGAAAACA	TGGAAAGTGT	TTTAAACGCT	TGTAACAGCT	CTTG TAGCTG	1200
TTGTGCTTGT	GGCCTGTGGT	CAAGGAACTG	CTTCTAAAGA	CAACAAAGAG	GCAGAACTTA	1260
AGAAGGTGTA	CTTTATCCTA	GACTGGACAC	CAAATACCAA	CCACACAGGG	CTTTATGTTG	1320
CCAAGGAAAA	AGGTTATTTT	AAAGAAGCTG	GAGTGGATGT	TGATTTGAAA	TTGCCACCAG	1380
AAGAAAGTTC	TTCTGACTTG	GTTATCAACG	GAAAGGCACC	ATTTGCAGTG	TATTTCCAAG	1440
ACTACATGGC	TAAGAAATTG	GAAAAAGGAG	CAGGAATCAC	TGCCGTTGCA	GCTATTGTTG	1500
AACACAATAC	ATCAGGAATC	ATCTCTCGTA	AATCTGATAA	TGTAAGCAGT	CCAAAAGACT	1560
TGGTTGGTAA	GAAATATGGG	ACATGGAATG	ACCCAACCTGA	ACTTGCTATG	TTGAAAACCT	1620
TGGTAGAATC	TCAAGGTGGA	GACTTTGAGA	AGGTTGAAAA	AGTACCAAAT	AACGACTCAA	1680
ACTCAATCAC	ACCGATTGCC	AATGGCGTCT	TTGATACTGC	TTGGATTTAC	TACGGTTGGG	1740
ATGGTATCCT	TGCTAAATCT	CAAGGTGTAG	ATGCTAACTT	CATGTACTTG	AAAGACTATG	1800
TCAAGGAGTT	TGACTACTAT	TCACCAGTTA	TCATCGCAAA	CAACGACTAT	CTGAAAGATA	1860
ACAAAGAAGA	AGCTCGCAAA	GTCATCCAAG	CCATCAAAAA	AGGCTACCAA	TATGCCATGG	1920
AACATCCAGA	AGAAGCTGCA	GATATTCTCA	TCAAGAATGC	ACCTGAACTC	AAGGAAAAAC	1980
GTGACTTTGT	CATCGAATCT	CAAAAATACT	TGTCAAAAGA	ATACGCAAGC	GACAAGGAAA	2040
AATGGGGTCA	ATTTGACGCA	GCTCGCTGGA	ATGCTTTCTA	CAAATGGGAT	AAAGAAAATG	2100
GTATCCTTAA	AGAAGACTTG	ACAGACAAAG	GCTTCACCAA	CGAATTTGTG	AAATAATGAC	2160
AGAAATTAGA	CTAGAGCACG	TCAGTTATGC	CTATGGTCAG	GAGAGGATTT	TAGAGGATAT	2220
CAACCTACAG	GTGACTTCAG	GCGAAGTGGT	TTCCATCCTA	GGCCCAAGTG	GTGTTGGAAA	2280
GACCACCCTC	TTTAATCTAA	TCGCTGGGAT	TTTAGAAGTT	CAGTCAGGGA	GAATTGTCCT	2340
TGATGGTGAA	GAAAATCCCA	AGGGGCGCGT	GAGTTATATG	TTGCAAAAGG	ATCTGCTCTT	2400
GGAGCACAAG	ACGGTGCTTG	GAAATATCAT	TCTGCCCTC	TTGATTCAAA	AGGTGGATAA	2460
GGCAGAAGCT	ATTTCCCGAG	CGGATAAAAT	TCTTGCGACC	TTCCAGCTGA	CAGCTGTAAG	2520
AGACAAGTAT	CCTCATGAAC	TTAGCGGTGG	GATGCGCCAG	CGTGTAGCCT	TACTCCGGAC	2580
CTACCTTTTT	GGGCACAAGC	TCTTCTCTTT	AGATGAGGCC	TTTAGCGCCT	TGGATGAGAT	2640
GACAAAGATG	GAACTCCACG	CTTGGTATCT	TGAGATTCAC	AAGCAGTTGC	AGCTAACAAC	2700
CCTGATCATC	ACGCATAGTA	TTGAGGAGGC	CCTCAATCTC	AGCGACCGTA	TCTATATCTT	2760
GAAAAATCGC	CCTGGGCAGA	TTGTTTCAGA	AATTAAACTA	GATTGGTCTG	AAGATGAGGA	2820
CAAGGAAGTC	CAAAAGATTG	CCTACAAACG	TCAAATTTTG	GCGGAATTAG	GCTTAGATAA	2880

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GTAGAAAAAT	AGGGAGTTGG	TGAAGATTAT	CCTTTACCAG	CGCCCTTTTT	CTTTTAAAAA	2940
TGAGAAAATT	TCGGTATAAT	AGTCAAACAA	GGTCAAGGTT	TAAAGAGAGA	GGTGGGTTTG	3000
TTATGAGATT	TAAAAATACA	TCGGATCATA	TTGAGGCCTA	CATCAAGGCG	ATTTTAGATC	3060
AATCTGGTAT	CGTGGAGTTG	CAACGGAGTC	AGTTGGCAGA	TACCTTTCAG	GTTGTTCCCTA	3120
GTCAGATTAA	CTACGTGATC	AAGACACGCT	TTACGGAAAG	TAGAGGCTAC	TTGGTTGAAA	3180
GTAAGCGTGG	TGGCGGAGGC	TACATTTCGT	TAGGACGGAT	TGAGTTTCT	AGTCATCATG	3240
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ATATTCTCCA	GCTTTTGGTT	GAGCAGGAAT	TGATGACCAA	GCAGGAGATG	AATTTGCTAG	3360
AATCAGTAGC	TTTGGATCGC	GTTTTAGGAG	AAGAAGCTCC	AGTTGTTCTG	GCAAACATGC	3420
TACGTCAGAT	CATACAAGAG	GTAGATAGAA	AAGGGAAGTA	AGATGAACTA	TTCAAAAGCA	3480
TTGAATGAAT	GTATCGAAAAG	TGCCTACATG	GTTGCTGGAC	ATTTTGGAGC	TCGTTATCTA	3540
GAGTCGTGGC	ACTTGTTGAT	TGCCATGTCT	AATCACAGTT	ATAGTGTAGC	AGGGGCAACT	3600
TTAAATGATT	ATCCGTATGA	GATGGACCGT	TTAGAAGAGG	TGGCTTTGGA	ACTGACTGAA	3660
ACGGACTATA	GCCAGGATGA	AACCTTTACG	GAATTGCCGT	TCTCCCGTCG	TTTGCAGGTT	3720
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CACGTCCTCT	ATGCGATTTT	GCATGATAGC	AATGCCTTGG	CGACTCGTAT	CTTGGAGAGG	3840
GCTGGTTTTT	CTTATGAAGA	CAAGAAAGAT	CAGGTCAAGA	TTGCTGCTCT	TCGTCGAAAT	3900
TTAGAAGAAC	GGGCAGGCTG	GACTCGTGAA	GATCTCAAGG	CTTTACGCCA	ACGCCATCGT	3960
ACAGTAGCTG	ACAAGCAAAA	TTCTATGGCC	AATATGATGG	GCATGCCGCA	GACTCCTAGT	4020
GGTGGTCTCG	AGGATTATAC	GCATGATTTG	ACAGAGCAAG	CGCGTTCTGG	CAAGTTAGAA	4080
CCAGTCATCG	GTCGGGACAA	GGAAATCTCA	CGTATGATTC	AAATCTTGAG	CCGGAAGACT	4140
AAGAACAACC	CTGTCTTGGT	TGGGGATGCT	GGTGTGGGGA	AAACAGCTCT	GGCGCTTGGT	4200
CTTGCCCAGC	GTATTGCTAG	TGGTGACGTG	CCTGCGGAAA	TGGCTAAGAT	GCGCGTGTTA	4260
GAACCTGATT	TGATGAATGT	CGTTGCAGGG	ACACGCTTCC	GTGGTGACTT	TGAAGAACGC	4320
ATGAATAATA	TCATCAAGGA	TATTGAAGAA	GATGGCCAAG	TCATCCTCTT	TATCGATGAA	4380
CTCCACACCA	TCATGGGTTC	TGGTAGCGGG	ATTGATTCTG	CTCTGGATGC	GGCCAATATC	4440
TTGAAACCAG	CCTTGGCGCG	TGGAACCTTG	AGAACGGTTG	GTGCCACTAC	TCAGGAAGAA	4500
TATCAAAAAC	ATATCGAAAA	AGATGCGGCA	CTTCTCTCGT	GTTTCGCTAA	AGTGACGATT	4560
GAAGAACCAA	GTGTGGCAGA	TAGTATGACT	ATTTTACAAG	GTTTGAAGGC	GAATTATGAG	4620
AAACATCACC	GTGTACAAAT	CACAGATGAA	GCGGTTGAAA	CAGCGGTTAA	GATGGCTCAT	4680

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CGTTATTTAA	CCAGTCGTCA	CTTGCCAGAC	TCTGCTATCG	ATCTCTTGGA	TGAGGCGGCA	4740
GCAACAGTGC	AAAATAAGGC	AAAGCATGTA	AAAGCAGACG	ATTCAGATTT	GAGTCCAGCT	4800
GACAAGGCCC	TGATGGATGG	CAAGTGGA	CAGGCAGCCC	AGCTAATCGC	AAAAGAAGAG	4860
GAAGTACCTG	TCTACAAAGA	CTTGGTGACA	GAGTCTGATA	TTTTGACCAC	CTTGAGTCGC	4920
TTGTCAGGAA	TCCCAGTTCA	AAAAGTACT	CAAACGGATG	CTAAGAAGTA	TTTAAATCTT	4980
GAAGCAGAAC	TCCATAAACG	GGTTATCGGT	CAAGATCAAG	CTGTTTCAAG	CATTAGCCGT	5040
GCCATTCGCC	GCAACCAGTC	AGGGATTGCG	AGTCATAAGC	GTCCGATTGG	TTCTTTATG	5100
TTCTAGGGC	CTACAGGTGT	CGGGAAACT	GAATTAGCCA	AGGCTCTGGC	AGAAGTTCTT	5160
TTTGACGACG	AATCAGCCCT	TATCCGCTTT	GATATGAGTG	AGTATATGGA	GAAATTTGCA	5220
GCTAGTCGTC	TCAACGGAGC	TCCTCCAGGC	TATGTAGGAT	ATGAAGAAGG	TGGGGAGTTG	5280
ACAGAGAAGG	TCGCAATAA	ACCCTATTCC	GTTCTCCTCT	TTGATGAGGT	AGAGAAGGCC	5340
CACCCAGATA	TCTTTAATGT	TCTCTTGACG	GTTCTGGATG	ACGGTGTCTT	GACAGATAGC	5400
AAGGGACGCA	AGGTCGATTT	TTCAAATACC	ATTATCATTA	TGACATCGAA	TCTAGGTGCG	5460
ACTGCCCTTC	GTGATGATAA	GACTGTTGGT	TTTGGGGCTA	AGGATATTCG	TTTTGACCAG	5520
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AACCGTATTG	ATGAGAAGGT	GGTCTTCCAT	AGCCTATCTA	GTGATCATAT	GCAGGAAGTG	5640
GTGAAGATTA	TGGTCAAGCC	TTTAGTGGCA	AGTTTGAAGT	AAAAAGGCAT	TGACTTGAAA	5700
TTACAAGCTT	CAGCTCTGAA	ATTGTTAGCA	AATCAAGGAT	ATGACCCAGA	GATGGGAGCT	5760
CGCCCACTTC	GCAGAACCCT	GCAAACAGAA	GTGGAGGACA	AGTTGGCAGA	ACTTCTTCTC	5820
AAGGGAGATT	TAGTGGCAGG	CAGCACACTT	AAGATTGGTG	TCAAAGCAGG	CCAGTTAAAA	5880
TTTGATATTG	CATAAAAGAA	TAAAAGTATC	AGCATCTGAC	CATAAGTCAC	AGTGGAGTGA	5940
AATTCAATGA	AAATCAAAGA	GCAAAC TAGG	CAGCTAGCCG	CAGGTTGCTC	AAAACACTGG	6000
TTTGAGGTTG	CAGATAGAGC	TGACGTGGTT	TGAAGAGATT	TTCGAAGAGT	ATGAAACTAA	6060
AACCTATAGC	TTCTAAACGA	TCCGTGGTTT	TCATCATTCA	ACACAAAATT	CATATGTTTA	6120
TTACCCTCCG	TCGTATTTGT	CTTAGAGCGT	GTGTAGTAGA	AAAAGAGCAG	TCTTATCTGA	6180
AATTTTATT	CTTTCAAAAG	AGACCTGTTT	CTTTTTTGCA	TGTCAAATCC	GTTCTAGCTG	6240
GTATTTGAAA	AATCAAAC TA	ATATTCAATG	AAAATCAAAG	AACAAACTAG	GAAGCTAGCC	6300
GCAGGTTGCT	CAAAACACTG	TTTTGAGGTT	GTAGATAGAG	CTGACGTGGT	TTGAAGAGAT	6360
TTTCGAAGAG	TATAAGCTGC	AAGATGAATG	ATTTTCTTGT	ATTGACGTTG	TTGTTGACAA	6420



862

AAAGTAGCGG	ATAAATGAAA	TCCATTCCAT	TATCATAGAT	GATAGGCTGG	TAGGAAATTT	6480
TCAAATAGCA	TACAGGAAAT	AGATGTATGG	AGTTCTGGTA	GTAGAAAGGG	AGAGAGATGA	6540
ACATTTTAGT	TGCAGATGAC	GAGGAAATGA	TTAGAGAAGG	AATTGCAGCA	TTTCTGACAG	6600
AAGAGGGTTA	TCATGTCATT	ATGGCTAAGG	ATGGACAAGA	GGTCTTGGAA	AAATTTCAAG	6660
ATCTCCCTAT	CCATCTCATG	GTACTGGATT	TAATGATGCC	TAGGAAGAGT	GTTTTTGAAG	6720
TGTTAAAAGA	AATCAATCAA	AAGCACGATA	TTCTGTTCAT	CGTCTTGAGT	GCTCTGGGAG	6780
ATGAAACTAC	TCAGTCACAG	GTATTTGATC	TCTATGCTGA	TGATCATGTG	ACAAAACCTT	6840
TTTCTTTGGT	ACTGCTTGTC	AAGCGTATTA	AGGCGCTTAT	CAGACGTTAC	TACGTCATAG	6900
AGGATCTTTG	GCGATATCAG	GATGTAACAG	TGGATTTTAC	CTCTTACAAA	GCACATTATA	6960
AAAATGAAGA	AATTGATCTC	AAACCAAAGG	AATTACTGGT	ACTAAAGTGT	TTGATTCAGC	7020
ATAAAAATCA	AGTTTTAAGT	AGAGAGCAGA	TATTGGAAGA	AATTTCAAAA	GATGTAGCTG	7080
ATTTACCTTG	TGATAGGGTC	GTTGATGTCT	ATATTCGTAC	TCTTCGCAA	AAATTAGCTT	7140
TAGATTGTAT	CGTGACTGTG	AAAAATGTTG	GGTATAAGAT	TAGCTTATGA	TAAAAAATCC	7200
TAAATTATTA	ACCAAGTCTT	TTTTAAGAAG	TTTTGCAATT	CTAGGTGGTG	TTGGTCTAGT	7260
CATTCATATA	GCTATTTATT	TGACCTTTCC	TTTTTATTAT	ATTCAACTGG	AGGGGGAAAA	7320
GTTTAATGAG	AGCGCAAGAG	TGTTTACGGA	GTATTTAAAG	ACTAAGACAT	CTGATGAAAT	7380
TCCAAGCTTA	CTCCAGTCTT	ATTCAAAGTC	CTTGACCATA	TCTGCTCACC	TTAAAAGAGA	7440
TATTGTAGAT	AAGCGGCTCC	CTCTTGTCGA	TGACTTGGAT	ATTAAAGATG	GAAAGCTATC	7500
AAATTATATC	GTGATGTTAG	ATATGTCTGT	TAGTACAGCA	GATGGTAAAC	AGGTAACCGT	7560
GCAATTTGTT	CACGGGGTGG	ATGTCTACAA	AGAAGCAAAG	AATATTTTGC	TTTTGTATCT	7620
CCCATATACA	TTTTTGGTTA	CAATTGCTTT	TTCTTTTGTT	TTTTCTTATT	TTTATACTAA	7680
ACGCTTGCTC	AATCCTCTTT	TTTACATTTT	AGAAGTGACT	AGTAAAATGC	AAGATTGGA	7740
TGACAATATT	CGTTTTGATG	AAAGTAGGAA	AGATGAAGTT	GGTGAAGTTG	GAAAACAGAT	7800
TAATGGTATG	TATGAGCACT	TGTTGAAGGT	TATTTATGAG	TTGGAAAGTC	GTAATGAGCA	7860
AATTGTAAAA	TTGCAAAATC	AAAAGGTTTC	CTTTGTCCGC	GGAGCATCAC	ATGAGTTGAA	7920
AACCCCTTTA	GCCAGTCTTA	GAATTATCCT	AGAGAATATG	CAGCATAATA	TTGGAGATTA	7980
CAAAGATCAT	CCAAAATATA	TTGCAAAGAG	TATAAATAAG	ATTGACCAGA	TGAGCCACTT	8040
ATTAGAAGAA	GTAAGGAGT	CTTCTAAATT	CCAAGAGTGG	ACAGAGTGTC	GTGAGACCTT	8100
GACTGTTAAG	CCAGTTTTAG	TAGATATTTT	ATCACGTTAT	CAAGAATTAG	CTCATTCAAT	8160
AGGTGTTACA	ATTGAAAATC	AATTGACAGA	TGCTACCAGG	GTCGTCATGA	GTCTTAGGGC	8220

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ATTGGATAAG GTTTTGACAA ACCTGATTAG TAATGCAATT AAATATTCAG ATAAAAATGG	8280
GCGTGTAATC ATATCCGAGC AAGATGGCTA TCTCTCTATC AAAAATACAT GTGCGCCTCT	8340
AAGTGACCAA GAACTAGAAC ATTTATTTGA TATATTCTAT CATTCTCAA TCGTGACAGA	8400
TAAGGATGAA AGTTCCGGTT TGGGTCTTTA CATTGTGAAT AATATTTTAG AAAGCTATCA	8460
AATGGATTAT AGTTTTCTCC CTTATGAACA CGGTATGGAA TTTAAGATTA GCTTGTAGAC	8520
AGATTAGTTT TTTATTAAAG TTCATATAGG GTTAACATAA GTGTGTTATT CTTTGTGTAG	8580
ATAAAAGAAA GGATACTAAT ATGGTATTAG CGATTATTTT AGTAACATTC TTTATTCGAT	8640
TGATTTTTTTT AAAGCGTTCG ATAGAGAATG AGAAACGAAT CCTTAGCAAT GCGGGG	8697

(2) INFORMATION FOR SEQ ID NO: 124:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4317 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 124:

AACCATACAT ACGGCAAGGC AAAGCTGACG CGGTTTGAAG AGATTTTCGA AGAGTATTAG	60
TTGCCTTTAA AGGCATCCAC CATCGTTTGA AATTCTTCAT TTGAGAGAGT AATCCCTTTG	120
CCCATTTTAG TATGGTCTGG ACTCCAAGCA CGAATATCAA ACTTTGCAGG GGCACCATTA	180
AAGCTCACAC GGTTAATTTT CTTGGTCCAA CCTTTTTCGT TTTCAGAAAG AGTCAACAAG	240
TGCTCTTCGA TTTCAAATGT AAATTCTGCC ATTTTCTTCT CCTTTTTCAG TTTCATTAGT	300
TTATTCGTAA AATCTTGTAG ATTTTAGGAA AATTTTATAT AATATTGATA TAAAAGAAGG	360
GAGGCCAATA TGAGACATAA ATTCCAGCAA GTTCTAAATA AAATACATGA TTTTCTAAAT	420
GGATATGACC AACCTGACCA GACTGAAACC AACTCCCTTA CAGCCACTAT TGAAGAGGCT	480
ATCCAGAAAC AAACCGCTGT TCACCTTATC TTGTCTGAGA CAAGCTTTAC AGGTGACATC	540
ATCAAATATG ATCAGCAAGG CCAGCAAATT ATCGTGAAAA ATTTTTCCTA AAATGTGAGC	600
CGGATTATCC GTATAAGCGA TATTCAACGC CTGCGATTTG TCCCCTCAAC TGTCCAAACA	660
GCCCCAAAAA ATAGATTTAA GAAAGAGTGA GATGTAGTTG CTTTCATCCA CTCTTTTTC	720
TTAGCGAATT TGTTCAAAAT GTAAATGAAC TGCGATATGA TCTCCATAAC CACTTCTTTC	780
CAAGTCACGT TGTAACGAT AGGAAATGTA GTGTTCTGCA ATGGTAATGT AACCTGCGCC	840
CAATAAACGA TGTTCAACCA TAGATTGAAT CATACTGATA GTCGCACGTT CCACCTTGGC	900

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TTCTTGTA	AA	TCCAAA	ACTA	CCTTCT	TAGT	GACTTG	GAGCA	AGATTT	TGAC	GCAAAT	CATC	960
TGTCAAA	ACA	TAAAC	AGTTT	GGGCTG	CCCT	CAAGAT	GGCT	TGGTAA	AATCT	TATCTG	GGATT	1020
AAATTC	AGCA	ATTT	CGCCAT	TACGTT	TGAT	TACTTG	GCATA	GGTTTC	TCCT	TTATT	CTTTG	1080
TTTTCT	TTTGA	TTTCTG	CCAG	CATTTT	TTTCT	TCTTCT	ACTG	TCAGTT	GATA	ATGTT	CAAGT	1140
AAATCC	GGTC	TGCGCT	CGTA	GGTTT	TCTTT	AAACTC	TCTGT	ACAATC	GCCA	CTGAC	GAATC	1200
TTTTCA	TGGT	GGCCACT	CAT	CAATAC	ATCT	GGCACG	ACCA	TGCCTC	GATA	ATCAT	AGGGA	1260
CGTGTG	TACT	GAGGAT	ATTC	TAAA	AGACCT	GAAGAA	AAAC	TATCAT	CTTG	GTGGCT	AGAC	1320
TCCTTG	CCAA	TCACTT	CTGG	AATCAG	GCGA	ACTGT	AGCAT	CAATCA	TGGT	CATAG	CTGCC	1380
AATTCT	CCAC	CAGTG	AGGAC	ATAGT	CACCT	AGGGAA	AATCT	CATCTG	TTAC	CAAGGT	CTTA	1440
ATGCGC	TCAT	CATAACC	CTC	ATAGT	GCCCA	CAGATA	AAGA	TTAGCT	CTTC	CTCTG	AGCC	1500
AAATCT	TCAG	CATAAG	CCTG	ATCAA	ACTGC	TTTCC	AGCAG	GATCA	AGGAG	AATAAC	GCGC	1560
GGATTT	TTTCT	TTTCA	AATAGC	ATCAA	AGGAA	TCGAAA	AATAG	GTTGTG	CTCT	GAGCA	AATG	1620
CCCTGA	CCGC	CTCCGT	AGGG	CTCAT	CATCT	ACATGA	CGGG	CCTTTT	CAGC	ATTTT	CTCGA	1680
AAATT	TATGAT	ACTGG	ATATC	CAAG	AGCCCT	TTTTCT	CGAG	CCTTT	CCAAC	GATTG	AGTGC	1740
TCCAGT	GGAG	AAAAC	ATCTC	TGGAA	AGAGG	GTAAA	AATAT	CAATCT	TCAT	CGTCT	AACCC	1800
TTCTA	AGATT	TCCAC	ATCGA	CCCGT	TTACT	TGGA	AATATCA	ACATTG	AGAA	CCACTG	GTGG	1860
GATATA	AGGT	AAAAG	CAAAT	CACGT	TTGCC	TTTT	CGTTTG	ACCAC	CCAGA	CATCAT	TAGC	1920
ACCTGG	TGTC	AGGAT	TTCCCT	TGATG	GTTCC	AACCA	AGCTA	TCAC	CCCTCAT	AGACT	TCCAA	1980
ACCGAT	AATC	TCGTG	ATAGT	AAAAT	TCACC	ATCGT	CTAGG	TCATT	CAAAT	CTTC	CTCAGC	2040
GACCTG	GAGA	CTGT	ATCCCT	TGTAC	TTTTT	GATAG	TATTG	ATATG	GTACA	TATCT	TTGAA	2100
TTTA	AATAATG	TCAA	AGTTCT	TCTGT	TTACG	GTGG	CTAGCG	ATGGT	CACTG	TTTG	GACAAA	2160
CTGAT	CTTTT	TCAT	CAAACA	AAACC	AGCTC	CTTTT	TTT	TTAA	ACCGTT	CTTCT	GCAAA	2220
ATCCGT	CACA	GACA	AGACTC	GCAT	CTCCCC	CTGT	AATCCC	TGCG	TATTAA	CGATTT	TCCC	2280
AACAT	TAAAG	TAGT	TCATCT	TGTCT	CCTGT	AATCT	CCTTT	TTTCC	ATCTT	ATTCT	AACAA	2340
TTCTC	GAATA	ATAG	CCGCAA	TTTTT	TCCGA	TTCTG	ACCAT	TGTAA	AATAAT	GGTG	ATCCC	2400
TCCTA	AAATG	AGTTT	AGTAT	TGGA	AGTCCA	ATATT	CTGAT	TCTCT	GTA	CTTTT	CTCT	2460
ATAAG	GCTGA	CAAAA	AACAA	ATAC	AGGAAT	ATGAG	CTTCT	ATAG	ATACAT	CCTCA	AAATC	2520
TTCTC	AGTA	ATCT	CTCCAG	ATAT	CTGAAA	TTCTG	GATCT	TGAT	TTTCCA	ACTCT	AAGCC	2580
TTTTT	CTTGC	ATTA	ATTCCC	AGAT	TTTTTT	ATT	CGTTTCA	GGA	CTAAATG	TTGCT	TGAGT	2640
TAAGT	TCTTA	AAATA	AAGTT	CAGG	ACCACA	CTCGT	CAATC	AGCCT	CATCT	GCTCT	TCCAT	2700

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TTCTGGATAA	GGATTTTCTG	AAAAATCAGC	AAACATGACT	TTTTTAGTTG	TCGGTTCAAT	2760
TGCTACTAAA	GTCTGACGCT	TAATTGGTTT	CTCGAGTAAT	TTGCAAGCTA	AAATTCCACT	2820
CCAACTATGT	GCACAAAGTA	TATATTCAGA	AATTCCTAAT	TCTTCAAGTA	CTTCATAAAC	2880
CGCATCTGCA	AGATTATCTA	GATTTTTCCT	AGCTTGGTCA	TGAATCGGAC	TCCTACCTGT	2940
GTTCGGAAAA	TCAATTGTCA	AATAACCAAT	TGTAGGAGGA	GGTTTTTCAA	GTATAAGTGA	3000
AAAATTTTCA	TAACTTGGTA	GCAAACCTGC	TCCGTTTAAA	CAAACCTAGCA	CTTTCTTTTG	3060
CTTTTGATAA	GTAACAGAGA	GGCTACCAAT	TTCTGTAGAT	ACTTCAAACC	TCTTCATAAA	3120
GAAATCCACT	GATTCTATAT	AATGAATTAT	TAAAAATCCT	TATCCTTTAT	TTTATCACGT	3180
TCCAAGGATT	TTCTCAAGTT	GGAGGAAGGG	GACAATATCT	CTACTTTCCC	TTCAATAATC	3240
CTTCCAAATT	ATGTTTATGT	TGGTAATTAA	TGGCTGCGGT	TTTGTCTTTC	TCAAAGACAG	3300
TCTTGGAAG	GTCAATATGA	TTAATAGCTA	CGATTGCGAC	GGTGTAGTAA	ATGATATCAG	3360
CCAGTTCTCT	GGCAAGTTCC	TCGTTTCAAT	CCTATCCCTT	CTTTTCGACC	AGAGCGCCTA	3420
TTCAAAACCT	CGACTACTTC	TCCGACTTCC	TCCACTAACT	TCATAAAGAG	ACCTTCATCA	3480
GTCCGAGACT	GCTGTTAATG	TTGATTAAG	TAGTCTTGGA	ATTGCCTAAA	CGTTCAATCT	3540
TTTATAGTAT	ATTGAAACTA	GAATAGTACA	CCTTTACTTC	TAAAACATTG	TTAGAAATCG	3600
ATTTGACTGT	CCTGATCGAT	TTGTCCGTGT	CTTGTTCAT	TTACTATAT	CTTCTATTCC	3660
ACACAAAAAA	GCGAGACATC	CGTCCCGCCC	TTCTTATTTT	TCGTCAATAA	CGATTCTTAC	3720
TTTTTTGTAT	TCAGTTGGGA	CAGAGTAGAC	AATCGTCTCT	ATCGCAGAAA	TAGTGCGACC	3780
CTTACGACCG	ATTACACGAC	CCACATCGCT	TTGATCAAGA	TTCAAATGAT	ATTCCAAAAA	3840
TTCTGGTGTA	TCCTCAATCT	TGATAGTTAA	GGCATCTGGT	TGTGAAATTA	AGGGTTTCAC	3900
AATCGCAATA	ATGAGATTTT	CAATCGTATC	CATCTGTCAA	CCTACTTTAA	ACTTATTTTG	3960
AAAATTTAGA	ATCGTGGAAT	TTTTTCAATA	CGCCTTCTTT	TGAAAGGATG	TTACGTACTG	4020
TGTCTGAAGG	TTGAGCTCCA	TTAGCCAACC	ATGCAAGAAC	GCGGTCTTCT	TTCAAAGTTA	4080
CTTGGTTTTT	AGCAACAAGT	GGGTTGTAAG	TTCCAACCTG	TTGATGAAA	CGTCCGTCAC	4140
GTGGTGAACG	TGAATCTGCT	ACGTTGATAC	GGTAGAAAGG	TTTTTTCTTA	GAACCCATAC	4200
GAGTCAAACG	GATTTTAACT	GCCATTTTTA	AAGTCTCAT	TCTTTAATTT	TTTATTTTCG	4260
TGAAATAGCT	GAGCTATTTA	GCACATGTTT	TATTATAGCA	GATTTCTGGC	ATGTGTC	4317

(2) INFORMATION FOR SEQ ID NO: 125:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 4881 base pairs



866

(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 125:

AATTTATTTG ACTGGAAATT GTAGAGGGTT CTCGAAATTT CTTGAATGGT TAAAATAAGG	60
ACAAGAGAAA ACATGGATAT CTATATCCTT GTGCCAAAAA AACCCTGCC CTCCCCAGAC	120
CAACCTGAGG AAAGCAGTGA TTCTTATTTT AGGAGTTAGG AATGAATACA CGAAATCAAT	180
TTAGCTGATT ATTTTTTGTT TTTCAAGAAT TCATCGTATT GTTTTTGCAT TTCGTTCAAT	240
ACTTTTTTCGT AGGCACCTTC AGATTTCAAT TTTTCCATCA ATTCTGGAAT CGCTTTATCT	300
GGGTCTACAG TACCAGTGTT GATAGCTGTA TCAAATTGTT GCATTGTGTT AGCAATAGCT	360
GAGATTTTCAG ATTTTCACATT GTCAGTATTG AAGATAAATC CAAGCGCTGG AGATTCTTTA	420
GCTTCTGCCA ATTCCTTCTT AGAATTTTCG ATTTGTTGGT CTGTAACGTT TTCGTTGATG	480
TAAAGGATCC AGTTGTTACC AGTGTTCCAT CCACCCATGT GAGTGTTCCT TTTGTAGCCA	540
TCAAGAACGC GAACACGGTT TTCTTTACCT TCAATTTTTT CCCAGTTCTT GCCTTCTGGA	600
CCGTAAACAA GACCGTTCAA GAGTTCTGGG TTCGTATTCA AGAGGTTCAA GATTTCCATT	660
GATTTTTCTT TGTCTTAGA GTTGTTTGAG ATGACAAAGT TAGCAACTTG TGTGTTTG	720
TTTTTCTTGA TGAAGTTAGT AATTGGTTTG ATTTGGATAT CTTTGTGGC AACACGTGAA	780
AGCAAGCTGT TACCGTAGTC AGCTGGTCCT ACTGTTTCTT CACGAACGAA CCAAGTATCT	840
TGTTGAAGGT CAAAGGAAGT ATCGCTTGTT GCGACGTCTT TTGGAATGTA GCCAGCTTCA	900
TAGAATTTGT GAAGAGTCTT CAAGTGTTCT TTGAAACGAG GCACTTCGTA ACGGTTTACA	960
ACTTTAGTAG TATCGCCTTC AAGGTCGATA ACGAATGGAA GACCGTTTGC TACTGGGTAG	1020
TCAAAATTAT CAGATGGGAT GAAAACTTTA CCAATAGCAA ATGGTACTAC GTCTGGAGCT	1080
TTTTCTTTGA TTTGTTTCAA GACTGGCTCA AGAGTTTCGT AAGAAGTAAC ACCTGAAATA	1140
TCGATACCAT ATTTAGCAAG GAGAGTTCCG TTGAAGGCAA AGTTTGTGAGA TGATGCAACG	1200
TTGGCTGCAA CTGGAACAGC GTAAATCTTA CCATTTACAG TATTACCCTT GATGTAAGCT	1260
GGGTCAAGTG CTTTGTAAG GTCTTTACCT TCTTTTTTGT ACAATTCTGT CAAGTCAGCG	1320
TAAGCACCTT TTTGAGCATT TACAATATAG TTATCTGCAA AGGCAATATC ATAGTTTTCA	1380
CCAGATGATG TGATAACTGA CATTTTCTTA CCATAGTCAC CCCAGCCAAG GTATTGGATA	1440
TCCAATTTGG CACCAACTTT TTCTTCAATG ATTTTGTTGG CATTTGCTAA CAATTCATCC	1500
AAGTTGTCTG GTTTGTCACC GATTGGTAC ATTTTGATAA CAGGTTTGTC ACCTGAATCA	1560

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GCAGCTTTTT	TGCTGTTACC	TGTCAAATTT	CCACAAGCAG	CAAGACCTGC	AGCCAGAGCG	1620
ACTACACTAG	CAGATGCAAA	AGCATATTTT	TTCCAGTTTT	TCATGATAAA	AACTCCTTTT	1680
TTTATTTTTA	AACTTATAAA	CAATGTAATG	ATCTTATACT	CAATAAAAAT	CAAAGAGCAA	1740
ACTAGAAAAC	TAGCCGCAGG	CTGCTCAAAG	CACTGCTTTG	AGGTTGTAGA	TAAGACTGAC	1800
GAAGTCAGTT	ACATATATCT	ACGGCAAGGC	GACGTTGACG	CGGTTTGAAT	TTGATTTTCG	1860
AAGAGTATTA	ACTTCACACA	AGGGAAGTTG	GGAAGTGAAG	AATGTTATTT	CTCAATAAGC	1920
ACTATTCTTT	CACACCACCG	ATAGTCAAAC	CTTTTACAAA	GTAGCGTTGG	AAAAATGGAT	1980
ACAAAATCGC	GATTGGAAGG	GTTGCAACCA	CAACCATGGC	CATACGACCT	GTTTCTTTTCG	2040
GTAGAGCAAC	TCCCAGTTGA	CCAATCAAGC	CGACCGCTTT	GGCAATGTAG	TCCATATTTT	2100
GTTGGATTTG	CATGAGCAAA	TATTGCAATG	GATACAAGTT	GTCACCTCTG	ATGTAAAGAA	2160
GGGCGTTGAA	CCAGTCATTC	CAGAAACCAA	GAGCTGTTAA	GAGCGTGATG	GTTGCGATAC	2220
CTGGTAGTGA	CAATGGCAAA	CAGATTTGGA	AGAAAATCCG	GGCCTCACTG	GCACCATCGA	2280
TACGAGCCGA	TTCTAGAATG	GCTTCTGGAA	TGGTCTTCTT	GAAGAAGGAA	CGCATCAAGA	2340
TGATGTTAAA	TGGTGAGAGA	AGCATTTGGA	CAATCAAGGC	CCAAACAGTG	TCACCAAGCT	2400
GAAGTACACG	GGTCACCATG	ATATAACCTG	GTACCAAACC	AGCGTTGAAC	AACATACTGA	2460
GAAGGACGAA	GATGGTAAAG	AATCTGCGAT	ACTTAAAGGT	TGTCCGTGAA	ATAGCGTAGG	2520
CATAGGTTGT	TGTGATAAAG	ACATTTGTCA	ATGTCCCAAC	TACGGTTACA	AAGACAGAGA	2580
TGAAGAGGGC	TTGTAGGATT	TTATCCTTAA	ACTGTGCCAA	AAACTCAAAA	CCGTCTAAGC	2640
CAAATTGGGA	TGGGAAGAAG	CTATAGCCGT	ATTGGAGGAG	GCTTTTCTCG	TCTGTCACTG	2700
AAATAATGAT	AACGAATACA	AAAGGTAGGA	TACAAGAGAG	GGCAATCAAA	CCCGAAATGA	2760
TACTGAAGAA	GATATCTGCT	TTCTTACTGA	AGGAGTGAAT	GCCGACATTA	TCAATTTTTT	2820
CTTTTTTAAT	TTTCTTTTTT	GCCATATTCT	CCTCCTTTCT	AGAACAAAGC	TGAGTTTGGA	2880
TCGACTCGTC	TTGCAAGCAA	GTTTGATAGG	ATAACCAGAA	TCAAACCAAC	AACGGATTGG	2940
TAAAGACCGG	CTGCTGCAGC	CATACCGATA	TCTGCTGTCT	GAGTCAAACC	ATTAAAGACA	3000
TATACGTCCA	AAACGTTGGT	TACATTGTAA	AGCTGACCAG	CATTGTGTGG	GATTTGATAG	3060
AAGAGACCGA	AGTCTGCGCG	GAAGATATTT	CCGACTGCAA	GGATGGTCAA	TACAGTTACA	3120
AGCGGAGTCA	ACTGAGGAAT	GGTTACGTTG	CGAATACGTT	GCCACTTGCT	AGCTCCGTCC	3180
ACTGTCGCTG	CTTCGTAGTA	GGTTGGATCA	ATTCCCATGA	TCGTGCGATA	GTACATGACA	3240
CTGCTATATC	CAAAGCCTTT	CCAAATACCT	AGGAAAAGTA	GGAGATAGGG	CCAGATGCCC	3300

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AGGTCAGCGT AGAAATTGAC TTCTTTGAGA CCAAGACTTT CCAATAGATG ATTGAACACC	3360
CCTTTATCAA TATTTAGGAA GGCATCTGTA AAGAAACTGA TGATAACCCA AGACAAGAAG	3420
TAAGGGAACA ACATAGAAGT TTGAAAAATC TTCACCATTC TCTTAGAACG GAGCTCGCTG	3480
AGGATAATGG CAATCCCTAC AGATACAACT AAACCTAGAA AGATAAAGCC AAGATTGTAG	3540
AGGACAGTAT TTCGTGTGAT AATAAAGGCG TCTCTTGAAC TAAATAAGAA TCTAAAATTA	3600
TCGAGTCCGA CCCATTTACT ATTTATGATA CTATCTATGA AACCATTACT GGTCATGTGG	3660
TAGTCTTTGA AGGCAACCAC GTTCCCAAAT ACTGGAATGT AAAAGAATAG AATCAACCAG	3720
AGTGCCCCCTG GCAAAACCAT CAAGAGAAAG ATCCAGTTGT CTCTCAATGT TTTTGAAAAC	3780
TTTTTCATAA TTTCTCCCT TTTTATTTTG ATATCCATCT AAAAATTCTT TTTTAGACTT	3840
TTGATAACGA TTACATTATT AGTATACTCC TATTTGCAGG TTAGGTTAAA CTCCTAATTA	3900
TAGAAAAAAC TCCACAAATT ATGTAGCAGA TTTAAAACTT TATCACCACCT ATCAAACAAA	3960
TGTCCTAAAT CAATTGTTTA TTTTATCTCT ATTAGCCCAG TGATGGCGTC ACTCTGTTAT	4020
AAGCATCCAA CAACGGGGTA TACTGAAAAA TCTCCAGACT AGGGAACCTCA GCGATAGTTC	4080
CTAATCTGGA GATTTTTAAT ATGTTATTAG GCGTTTGCTT TCAACTTAGC AATAACCTCT	4140
TTAAGATTAT CAATCAACTC TGCTGCAGTA TGCTCAGAGC CTTTTTCATC TGCCAAGAAC	4200
AAACTGCTT TTTGAAGTTC TTTTTGAGAG TTTTCAAGGA CATCCTTATC TACTGTTTCA	4260
AGGTTTGAGT CTTTAAGAAG TTTACTTAAT TCCTTGCTA ATTTCTTGAG TTTGATTTGC	4320
AGACTCATCT TCTCCTGCTG TTTCTTTGCC CGCTGTTTGT CCTCCATCCT TAGTTGCTGA	4380
CTGGCTTTCC TTAATGGACT CTAGGGAAGC AATGGCATCT TTGACTGTTT GCAAGATATC	4440
ACGTAAACCT TGCTCTGTCA AACTATCATC TGCAAAGCT TTATTAGCCT CTGCCAAAAC	4500
CAGACGTGCT GAATCTGTGG TAGGATTCTGA TACACCTGTC AATGATCTCA AAAGATTTTC	4560
TAAGGTTTGA GTCTGCTTAC TAATACTAGA CTAAAATCAA AAAGTATTAT ATAACAGTGA	4620
TATGAAATCA ACTAAAGAAG AAATCCAAAC CATCAAAACA CTTTTAAAAG ACTCTCGTAC	4680
AGCTAAATAT CATAACGCC TTCAAATCGT TCTATTTTGT CTGATGGGCA AATCTTATAA	4740
AGAGATTATA GAACTTTTAT AGTAGTTTGA AATAAGATGT GAACATCTCT ATCAGGAAAG	4800
TCAAATTAAT TTATAGAAAT ATTTTAGCAG CCAAGGTGTA CTGTTATAGA TTCAATACAC	4860
TATACTTGGT GGTTTAGCTC G	4881

(2) INFORMATION FOR SEQ ID NO: 126:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 13121 base pairs  
(B) TYPE: nucleic acid

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(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 126:

AGGATCCCCG	GAAAAGGAGA	CTAAAAATGA	AGAAAAAATT	TCTAGCATTT	TTGCTAATTT	60
TATTCCCAAT	TTTCTCATTA	GGTATTGCCA	AAGCAGAAAC	GATTAAGATT	GTTTCTGATA	120
CCGCCTATGC	ACCTTTTGAG	TTTAAAGATT	CAGATCAAAC	TTATAAAGGA	ATTGATGTTG	180
ACATTATTAA	CAAAGTCGCT	GAGATTAAAG	GCTGGAACAT	TCAGATGTCC	TATCCTGGAT	240
TTGACGCAGC	AGTCAATGCG	GTTCAAGCTG	GGCAAGCCGA	CGCTATCATG	GCAGGGATGA	300
CAAAGACTAA	AGAACGTGAA	AAAGTCTTCA	CCATGTCTGA	TACTTACTAT	GATACAAAAG	360
TTGTCATTGC	TACTACAAAG	TCACACAAAA	TTAGCAAGTA	CGACCAATTA	ACTGGCAAAA	420
CCGTTGGTGT	TAAAAACGGA	ACTGCCGCTC	AACGTTTCCT	TGAAACAATC	AAAGATAAAT	480
ACGGCTTTAC	TATTAAAACA	TTTGACACTG	GTGATTTAAT	GAACAACAGC	TTGAGTGCTG	540
GTGCCATCGA	TGCCATGATG	GATGACAAAC	CTGTTATCGA	ATATGCCATT	AACCAAGGTC	600
AAGACCTCCA	TATTGAAATG	GATGGTGAAG	CTGTAGGAAG	TTTTGCTTTC	GGTGTGAAAA	660
AAGGAAGTAA	ATACGAGCAC	CTGGTTACTG	AATTTAACCA	AGCCTTGTCT	GAAATGAAAA	720
AAGATGGTAG	TCTTGATAAA	ATTATCAAGA	AATGGACTGC	TTCATCATCT	TCAGCAGTGC	780
CAACTACAAC	TACTCTCGCA	GGATTAAAAAG	CTATTCCTGT	TAAGGCTAAA	TATATCATTG	840
CCAGCGATTC	TTCTTTTGCC	CCTTTTGTTT	TCCAAAATTC	AAGCAACCAA	TACACTGGTA	900
TTGATATGGA	ATTGATTAAG	GCAATCGCTA	AAGACCAAGG	TTTTGAAATT	GAAATCACCA	960
ACCCTGGTTT	TGATGCTGCT	ATCAGTGCTG	TCCAAGCTGG	TCAAGCCGAT	GGTATCATCG	1020
CTGGTATGTC	TGTCACAGAT	GCTCGTAAGG	CAACTTTTGA	CTTCTCAGAA	TCATACTACA	1080
CTGCTAATAC	CATTCTTGGT	GTCAAAGAAT	CAAGCAATAT	TGCTTCTTAT	GAAGATCTAA	1140
AAGGAAAGAC	AGTCGGTGTT	AAAAACGGAA	CTGCTTCTCA	AACCTTCCTA	ACAGAAAATC	1200
AAAGCAAATA	CGGCTACAAA	ATCAAAACCT	TTGCTGATGG	TTCTTCAATG	TATGACAGTT	1260
TAAACACTGG	TGCCATTGAT	GCCGTTATGG	ATGATGAACC	TGTTCTCAAA	TATTCTATCA	1320
GCCAAGGTCA	AAAATTGAAA	ACTCCAATCT	CTGGAACTCC	AATCGGTGAA	ACAGCCTTTG	1380
CCGTTAAAAA	AGGAGCAAAT	CCAGAACTGA	TTGAAATGTT	CAACAACGGA	CTTGCAAACC	1440
TTAAAGCAAA	CGGTGAATTC	CAAAAGATTC	TTGACAAATA	CCTAGCTAGC	GAATCTTCAA	1500
CTGCTTCAAC	AAGTACTGTT	GACGAAACAA	CGCTCTGGGG	CTTGCTTCAA	AACAACTACA	1560



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AACAACCTCCT	TAGCGGTCTT	GGTATCACTC	TTGCTCTAGC	TCTTATCTCA	TTTGCTATTG	1620
CCATTGTCAT	CGGAATTATC	TTCGGTATGT	TTAGCGTTAG	CCCATACAAA	TCTCTTCGCG	1680
TCATCTCTGA	GATTTTCGTT	GACGTTATTC	GTGGTATTCC	ATTGATGATT	CTTGCAGCCT	1740
TCATCTTCTG	GGGAATTCCA	AACTTCATCG	AGTCTATCAC	AGGCCAACAA	AGCCCAATTA	1800
ACGACTTTGT	AGCTGGAACC	ATTGCCCTCT	CACTCAATGC	GGCTGCTTAT	ATCGCTGAAA	1860
TCGTTTCGTGG	TGGTATTTCAG	GCCGTTCCAG	TTGGCCAAAT	GGAAGCCAGC	CGAAGCTTGG	1920
GTATCTCTTA	TGGAAAAACC	ATGCGTAAGA	TTATCTTGCC	ACAAGCAACT	AAATTGATGT	1980
TGCCAAACTT	TGTCAACCAA	TTCGTTATCG	CTCTTAAAGA	TACAACTATC	GTATCTGCTA	2040
TCGGTTTGGT	TGAACTCTTC	CAAACGGTA	AGATTATCAT	TGCTCGTAAC	TACCAAAGTT	2100
TCAAGATGTA	TGCAATCCTT	GCTATCTTCT	ATCTTGTAAT	TATCACACTT	TTGACTAGAC	2160
TAGCGAAACG	CTTAGAAAAG	AGGATTCGTT	AATGGCAAAA	TTAAAAATTG	ATGTAAATGA	2220
TTTACACAAG	CACTATGGAA	AAAATGAAGT	CCTAAAAGGA	ATTACGACTA	AGTTCCTATGA	2280
AGGAGATGTT	GTTTGTATCA	TCGGTCCTTC	AGGTTCTGGT	AAGTCAACTT	TCCTCCGTAG	2340
CCTCAATCTT	TTAGAAGAAG	TCACTAGCGG	TCACATCACT	GTGAACGGCT	ATGATTTAAC	2400
TGAAAAAACA	ACCAATGTTG	ACCACGTCCG	TGAAAATATC	GGCATGGTAT	TCCAACACTT	2460
CAACCTCTTC	CCTCATATGT	CTGTATTGGA	CAACATCACC	TTTGCTCCTA	TTGAGCACAA	2520
GTTGATGACT	AAGGAAGAAG	CTGAGGAATT	GGGAATGGAG	TTGCTTGAAA	AGGTTGGACT	2580
AGCAGATAAA	GCTAATGCCA	ATCCAGATAG	CCTATCAGGT	GGTCAAAAAC	AACGTGTGGC	2640
CATCGCTCGT	GGCCTAGCAA	TGAATCCAGA	CATCATGCTC	TTCGATGAAC	CAACTTCTGC	2700
CCTTGACCCT	GAGATGGTTG	GAGACGTACT	TAACGTTATG	AAGGAATTGG	CTGAGCAAGG	2760
CATGACCATG	ATTATCGTAA	CCCATGAGAT	GGGATTTGCT	CGTCAGGTTG	CCAACCGCGT	2820
TATCTTTACT	GCAGATGGCG	AGTTCCTTGA	AGACGGAACA	CCTGACCAAA	TCTTTGATAA	2880
CCCACAACAC	CCTCGTCTGA	AAGAGTTCTT	AGATAAGGTC	TTAAACGTCT	AAACTCAAAC	2940
TGTAAGGATT	TCCTTGCACT	TTTTCTACCT	CGTATTGGAA	TTTTTGATTT	TTGGAATAAT	3000
TATGTTAGAA	TTAAGTTTAT	GAAATGAGGT	TTCCTCATAC	CTAGCAAGAC	TAGGAATAAA	3060
AATAGAAATT	AGGTAGCTAG	ATGTCATCTA	AGGTTATTGT	TACAATTTTC	GGTGCAGAGT	3120
GAGACCTGGC	TAAACGCAAG	CTCTACCCTT	CCCTTTTATG	ACTATATCAA	TCCGGCAATC	3180
TTTCCAAGCA	CTTTGCCGTT	ATTGGAACGT	CCCGTAGACC	TTGGAGTAAG	GAATATTTTG	3240
AATCTGTAGT	TGTCGAGTCC	ATCCTTGATT	TGGCAGATAG	TACCGAGCAA	GCCCAAGAAT	3300
TTGCTAGCCA	CTTCTACTAT	CAAAGCCATG	ATGTCAATGA	TTCGGAACAT	TATATTGCTT	3360

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TGCGTCAATT	ACAAGCTGAG	CTTAATGAAA	AATACCAAGC	TGAACACAAT	AAGCTCTTCT	3420
TCTTGCTCTAT	GGCACCTCAG	TTCTTTGGAA	CCATTGCCAA	ACACCTCAAA	TCTGAAAACA	3480
TTGTGCGATGG	CAAAGGTTTT	GAGCGCTTGA	TCGTTGAAAA	ACCATTTGGT	ACAGATTACG	3540
CAACTGCAAG	CAAGTTGAAT	GACGAACTCC	TAGCAACATT	TGACGAAGAA	CAAATTTTCC	3600
GTATCGACCA	TTATCTTGGT	AAGGAAATGA	TCCAAAGCAT	CTTTGCAGTT	CGCTTTGCAA	3660
ACTTGATTTT	TGAAAACGTT	TGGAACAAGG	ATTTTATCGA	CAATGTTCAA	ATTACCTTTG	3720
CGGAGCGCTT	GGGTGTAGAA	GAACGTGGTG	GCTACTATGA	CCAATCCGGT	GCCCTCCGTG	3780
ACATGGTCCA	AAACCACACT	CTACAAC TTC	TTTCGCTCCT	CGCCATGGAC	AAACCAGCAA	3840
GCTTCACAAA	AGACGAGATT	CGTGCTGAAA	AGATTAAGGT	CTTTAAAAAC	CTCTATCATC	3900
CAACTGATGA	AGAACTCAAA	GAACACTTTA	TCCGTGGGCA	ATACCGCTCT	GGTAAGATTG	3960
ATGGCATGAA	ATACATCTCT	TATCGTAGCG	AGCCAAATGT	GAATCCAGAA	TCAACAAC TG	4020
AAACCTTTAC	ATCTGGTGCC	TTCTTTGTAG	ACAGCGATCG	ATTCCGTGGT	GTTCCCTTCT	4080
TTTTCCGTAC	AGGTAAACGA	CTGACTGAAA	AAGGAACTCA	TGTCAACATC	GTCTTTAAAC	4140
AAATGGATTC	TATCTTTGGA	GAACCACTTG	CTCCAAATAT	TTTGACCATC	TATATTCAAC	4200
CAACAGAAGG	CTTCTCTCTT	AGCCTAAATG	GGAAGCAAGT	AGGAGAAGAA	TTTAACTTGG	4260
CTCCTAACTC	ACTTGATTAC	CGTACAGATG	CGACTGCAAC	TGGTGCTTCT	CCAGAACCAT	4320
ACGAAAAATT	GATTTATGAT	GTCCTAAATA	ACAAC TCAAC	TAAC TTTAGC	CACTGGGATG	4380
AAGTTTGTGC	GTCATGGAAG	TTGATTGACC	GTATTGAAAA	GCTCTGGGCT	GAAAAATGGTG	4440
CCCCACTTCA	TGACTATAAA	GCTGGAAGCA	TGGGACCTCA	AGCCAGCTTT	GACCTACTTG	4500
AAAAATTCGG	TGCCAAATGG	ACTTGGAAC	CAGATATCAC	CTATCGTCAA	GATGGTCGCT	4560
TAGAATAAAA	AAATTTCTTG	CAAGTTTATG	CcTTGCAGGA	TTTTTGCTTC	TGATTAGATT	4620
AAACCTTCCA	AGAGACCTTT	CATAAAGTTT	TCTGAGTTAA	ACTCTCCAAT	ATCATCGATT	4680
TTTTACACAA	AACCAATCAA	TTTTACAGGA	ATATTGAGTT	CTTCACGAAT	GGCTAGAACC	4740
ACACCTCCTC	GAGCAGTTCC	ATCAATCTTA	GTCAAAACAA	TTCCCGTTAA	AGGTGTGATT	4800
TTCGAAAAAT	CTTTGGCCTG	TACTAGGGCA	TTTTGACCTG	TTGATGCATC	AAGTGCCAAG	4860
AAGGTTTCAT	GTGGTGCTTC	TGGCACAACA	CGTTTGATAA	TACGACCAAT	CTTTTCCAAC	4920
TCAGCCATAA	GGTTATCCTT	ATTTTGCAGA	CGACCAGCAG	TATCAATCAT	GAGAATATCG	4980
ATACCTTCAG	TCACGGCACG	TTCCATACCA	TCAAAGACCA	CGCTGGCTGG	ATCAGCTTTT	5040
TCAGGTCCAG	TTACTACTGG	AACATCTACT	CGTCGGCCCC	ATTCAGCTAG	CTGAGCTACT	5100

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GCACCCGCAC	GGAAGGTATC	TGCTGCAACC	AGCATGACCT	TCTTACCAGC	TTGTTTGTAG	5160
CGGTGGGCTA	GTTTTCCGAT	AGAAGTTGTT	TTCCCAACAC	CATTACACACC	AACAAAGAGC	5220
ATAACTGTCA	AGTTATCTTG	GAAGTGGATG	CTTTCATCGT	AGCTACCATC	CTTTTCATAA	5280
AGCTCAACCA	ATTTCTCAAT	GATGACACGA	CGAAGTACAT	CAGGTTTCTT	GGCATTTTCA	5340
AGCTTGGCTT	CGTAACGTAG	TTCTCCGTT	AAGTTAGAAG	CGACTTGGAC	ACCAACATCA	5400
CTCATAATCA	GCAGTTCTTC	CAGTTCCTCG	AAAAATTCTT	CGTCAACAGA	GCGGAAGTTA	5460
GCAAAGAAGG	CATTCAAGCG	GGCACCAGAA	CCTGTGCGAG	TTTTCTTAAG	ACTGCGGTCA	5520
TATTTTTCCT	GAACAGTTTC	TTCTGTTTGA	GGAGCTTCTG	GTTCAAGCAC	TTCAGAATTA	5580
TTTTCTTCTA	CAGTTCCTTC	GTGCTCAAGC	TTCTCTTCCT	CTGGTAATTC	TTCTGAGTTT	5640
GGTAATTCTT	CTATTTCTTC	TTGAGAAACC	CCTACAGCTG	GCTCTGAATC	CTGACTTTCT	5700
TCAACTGTGT	CTTGGATTTT	CTCTTCTTGG	AACACAGCTT	GTTCAACAAT	TTCAACCTCT	5760
GCTTCTTCCT	GAGAACTTC	CTCAACTTCT	GTGAAGGTAG	GATCAACATC	TTCAACCTCT	5820
TCAAGATTTT	CCAGAGCTTC	TTTTACAAC	TCTTCGATTT	TAGGTTCTTC	TTTTTTTCCG	5880
AATAGACGGT	CAAACAATCC	CATATCTTAG	TTCTCCTTTA	GCACATATTC	TTGATAGCC	5940
CAGGCGACAG	CTTCCTCATC	GTTGGTCATC	GGCGTCACTA	CATTTGCGGC	TGCCTTTACT	6000
TCAGGAACAG	CGTTTTGCAT	AGCAACACCA	AGACCTGCCC	ATTCAATCAT	AGAGAGGTCA	6060
TTGGCCTCGT	CACCACAAGC	CATCACTTGA	CTTTGGTCGA	TTCCAAGATG	GCTGATTAGT	6120
TTTGCCAAAC	CTGTTGCTTT	ATGAACATTC	TTTGGTGACC	ATTCTAGCAA	CATTTACGTT	6180
GATTTAAAGA	TTTCATATTG	GTCAAACAAT	TCTGGAGAAA	TCTTCTGAAT	GGCTGCATCC	6240
AAGGGTTCTT	GAGCAAAGGC	AGTCACGCAT	TTGTTGTAGG	TCATTTGACT	AGATAAGTCT	6300
TCAAAGTCCA	CTGGAACAAA	GGTCAAAGCT	GGATTGAATT	TGGCATAAAG	ACTTTCTTGG	6360
TCCGATTGGA	TTTGATAAAC	TGTTCTTCTT	GAGATGGCAT	CAAGAGGCAG	TGATAATTTT	6420
TCTGTTTCTT	CATACAAACG	TGCCACATCA	TCATATGAAA	AGACTGTTTT	ATCAAGGATT	6480
TCTCCTGTAT	TTTTCTGAAC	TAATCCACCA	TTAAAAGTAA	TGGTATACTC	ATCTTCCTGA	6540
CCGTCAGTCC	CTAACTCATG	GAGAAAGAAA	TCCATGGCTT	TTAAGGGACG	ACCAGTTGTC	6600
AATACGACCT	TGATACCACG	ATCACGCGCA	gCTTGCAAGG	TTTCCTTGGT	ACGATCCGTC	6660
AGCCTTTTAT	CAGTAGTCAG	CAAGGTCCCG	TCCAAGTCCA	ATGCAATCAA	TTTTATATCT	6720
GCCATTATAA	GCCCTCCATA	TAAGCTATAA	CCGACCGTTC	CTTATGGTGA	CCAATCACAG	6780
TCTTTGCTAA	TTCTAAAATT	TCAGGTCGTG	CATTTTCAGG	AGCTACAGGA	TGTCCACAAA	6840
CCTGCATCAT	ATGTAAGTCA	TTAAGATTGT	CTCCAAAAGC	CATGACCTGA	TCCATTGTGA	6900

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TACCAAGTTT	TTTAACTAAT	TCAACAATGG	CCACTCCCTT	ATCGACATAG	TCCAGAACAA	6960
TATCAATGGA	TTCAAAGCCA	GTTGTCATGG	CCTTAACACC	AGGAACGTTT	TCGTTTACCC	7020
AAGCCTCCCC	ATCTTCCAGC	GTTCCTTCTG	TGAAGTTGGT	TGTAAATTTG	AAAATGTCAT	7080
CTGTGATATC	TTCCAAACTC	GCTACTTTTT	GGATATTTTC	ATTATAGTGC	TGACTCACTT	7140
TCAAATAGGT	CTCATCAACC	GTATCTAGAA	CATATGAACC	CTTCTTACCC	GTCAAGAGCA	7200
GTTTATTGAT	ATCTACATAA	GGTGAAGTTT	TCAGCTTTTC	AAAAGTTGCC	AGATAAAAGT	7260
CACGAGACAT	AGTCGCTTCA	TACAAGTCCT	GACCTTGATA	CTCTACCAA	CTGCCATTTT	7320
CCGCGATGAA	AATAATGTCA	TCACGAACAC	CAGCAAATAA	TTTTTCTAGA	GACAGAAATC	7380
CCCGACCCGA	AGCTACCGCA	AAGTAAATCC	CTTTTTCCTT	GTAGGAAACC	AAGAGAGACT	7440
TGAGACGATC	CATATCAAAG	CGTCCATTCC	CATCTAGGAA	GGTTCCGTC	ATATCCGTTG	7500
CTACTAGTTT	AATTGTCATC	CTTCAATACT	TTCTAAATCT	TTTAACTTAA	CTGAAACAAT	7560
CTTTGAAACA	CCCGATTCTT	GCATGGTCAC	TCCATAGATG	GAATCAGCCG	CTGCCATGGT	7620
TCCCTTACGG	TGGGTACGA	CGATGAACTG	GCTGTCCTTG	TCAAAGCGGT	TGAGGTAATC	7680
CCCAAACGT	TTAACATTGG	CTTCATCCAG	CGCAGCTTCC	ACCTCATCCA	AGATAACAAA	7740
TGGAATAGTC	TTGACACGAA	TAATGGAGAA	GAGCAAGGCA	AGAGCCGATA	GGGCTTTTTT	7800
ACCACCACTC	ATGAGATTAA	GAGACTGGAT	TTTCTTGCC	GGTGGTTGGA	CAGAAATTTT	7860
AACCCAGCT	GTCAGCAAGT	CTCCTTCAGT	CAAAATGAGG	TCAGCCTGAC	CTCCACCAA	7920
CATCTGCTTG	AAGGTCCTT	TAAAGGACTC	ACGAATGACC	TCAAAGGTTG	ATTTAAAGCG	7980
TTCCTTGACC	TCATCATTTA	TCTCTGTAAT	GGTCTCAAGG	AGCAGGTTTT	TCGCAGACAA	8040
AATATCATCA	CGTTGGCTAT	TTAGGAAATC	CAGACGGTTG	TGAACTTCTT	CGTACTGTTC	8100
AATAGCGTCT	AAATTGACAG	GACCCAGTGA	GCGTATAGCC	TTCTCTAAAT	CCTTAACTTC	8160
TTGCTCTGCC	AGATTGAGAT	TTTCCAACCT	ATGCGCCTTT	TCTAAAGCTT	CTGTGTAGCT	8220
GATCTGGTAC	TGGTCTGTTA	ATTGACTTTG	TAGATGGCGC	AAGCGCTCGC	TAACCTTTTC	8280
TTTCTTGGCT	TCAGCACGAG	TTTGCTTGCG	AATCCACTCT	TCATTCTGCT	GGCGAGCCTG	8340
ATCCAAATGA	CTAGCAATAT	CATCCAGTTG	ACCCTCAATA	TCATCCAACT	CAAACCTGCT	8400
GCGAATCAAA	CCTTGTTGGA	GATTTGTTTT	TTGAGTTTGT	GATTCTTCCG	CCTGTTGACT	8460
GAGCAATTCT	GTATCAACCT	TCTCAAGATT	ATCAATCTTT	TCTTGAAGAA	GGCGCTGGAT	8520
TTCCTCTTGT	TCAAAATCAA	GATTGTCCAA	TTCCTTGCC	AAGCGTTCAA	TATCAGCAAC	8580
TTCATAACGT	TTTTGCCCTT	GCAGTTCTGT	CTTAAGCAAA	CGAGCTTGCG	CTAGCTCTTC	8640



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CTGCAAGTTT	TGATAGCGTT	CTTGATGGC	ATTTTTGTTA	GACTTAATCT	CTTCAATCTC	8700
AGCTTCCAGA	TTTTGCTTGT	CACTGGAGAT	TGCAGCAAGA	CGCTCTTGGC	AGTTTTCCTT	8760
ATCCGCTTGC	CAATCTCCCT	CGGAAAGACG	ATCTATTTCC	TCTTCTTGGA	GTTTCCAAAG	8820
AGTTTCCAGT	TCTTCAACTT	GCTGACTAGT	TTGCTGATAA	GCGAGGAACA	AGCCTTGCTC	8880
CTGAATACGT	GCCTGCTCTC	CTTGAGATTT	AATAGCTTCT	AATGACTCGG	TCAATCTGGC	8940
CATCTCATCT	TGCAAGGTCT	TCAAAGTCGC	CTCTTCTGAA	CCCAAGCTTG	CTTCTTCTTC	9000
AGCAATTTCT	TTTTGTAATT	GCTCCAGTTC	TGGCTTGATA	AAAATGCTGT	TATTCTGGCG	9060
ATTGGCACCA	CCTGCATAAG	AACCACCTGT	GCGCAACTCT	GTCCCATCCA	ATGTCACCAT	9120
ACGAACCTGA	TAACGAACTT	GGCGAGCTGC	TGCACGCGCA	TGTTCTACGG	TATCAAAGAT	9180
AGCCGTCGTA	GCTAGCAAGT	TCTTGAAAAT	GGCTTCCAGT	CTAGTATCAA	AAGTCACCAA	9240
CTCATCTGCC	ATCCCAAGGA	AACCTGGGCT	TACAGCGATA	GCATCTTGGT	TCTGACTAGA	9300
AATCGTACGC	GCCTTGATAG	TGGTCAAAGG	AAGAAAGGTT	GCACGACCGG	CTCTGTTCCG	9360
TTTAAGGAAG	TCAATAGCCT	TGGTTGCCGA	CTCTTCATCT	TCTACGATGA	TATGCTGGCT	9420
ACTTGCCCCCT	AAGGCAATCT	CTAGGGCAGT	TTGATAATAA	ACATCAAAGG	TCAGATGCTC	9480
ACTGACTGCA	CCAATAATCC	CACCTAGGCG	ATCTTTTTCT	TGGAGAACAC	TCTTAACACC	9540
TGCATAAAAG	TTACTATGAT	TTCTCAGGAT	ATTTTCCAAA	CTTTGAGCTC	TGGCCTGCTT	9600
GTTTTTGA	TTATCCAGAC	GGTCAAAGAG	TTGGCTTTGT	TGAGCTTGAT	AGGAAGTTTT	9660
CTGCTCCTCT	TGCTCCTTGG	CAATAGCTTG	GTAGTCAGCC	AATAATTTCT	GAACCTGCTC	9720
CTTGGCAGTT	TCAAGCTCTT	CCTTTTGCTG	ACTAGCCTTC	TCTTTAGCTA	TAGCTAATTG	9780
CTCTTTCAGC	TTTTCTAGTT	GATCTGCTTG	TTTTTGAGAA	AGCTGACGAC	TATTTTCCAA	9840
CTCATTTCTCA	ATACGGGTCA	ACTGGTTTGA	GACATCCGCT	TCTTCTTGTA	AAAGAGCTAC	9900
AAAGCGTTCA	CGTAAGAGCT	CAATCATCTG	ATCAGGATCG	TCTGAGAAAG	CCAGCAATTC	9960
AGCTTCTAAA	CGATTGAGTT	TTTGATTATT	TTGGACTAGA	TTTCCCTCTA	ACAGAGCTAA	10020
AGAGCTTTCT	TTATCAGACT	TTTCTTTGCT	GAGTGAATTT	CTCTTATCCT	CCAAAGCAGC	10080
CAAACGGGCT	TGTGCCTCCT	GTTGATTCAA	GGCCACTTGC	TCGGACTCCA	GTTTCGATAG	10140
GGCTAATTTT	CTTTCTAAAT	CACTAATCAG	ACTAGTCAAG	TCCATCAAAC	TGCCTTGGTC	10200
TTTGGCCATT	TCAGCCTGTA	AATCTTGGCG	TTGCTTTTTA	AGAGTTTGAT	TTTCTTCTTC	10260
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TTCTGTGAC	TCTAGTTCAG	CCTTATTTTC	CTTGATTTGA	GCAACCAGAA	CATCTAAATA	10380
AATAGCCTTA	CGTTGTCCTT	CCAAGTCTAA	AAACTTACGG	GCATTCTCAG	CTTGCTTCTC	10440

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AAGAGGCTTG	ATTTGATTAT	CCAAC TCGTA	GATAATGTCC	TCTAAGCGGT	CCAGATTATC	10500
CTGAGTTTGC	TGCAGTTTAC	TCTCGGTTTC	TTTTCTGCGA	GTCTTGATTT	TTAAAACTCC	10560
AGCAGCTTCT	TCAAAAATAG	CTCGTCGTTC	CTCAGGCTTG	GAATTAAAAA	TCTCCTCAAC	10620
CTTCCCTTGG	GAAATAATAG	AGAAGGAATC	TCGTCCCAAT	CCAGTATCCA	AGAAGAGGTC	10680
ATGAATATCA	CGCAGACGGA	CTTTCTTGCC	GTCAATCTTG	TATTCGCTAT	CTCCACTACG	10740
ATAGACATGG	CGTTCCACCC	TGATTTCTTG	ACCTGCATCC	TTGATAAATC	CGTCATGATT	10800
ATCCAGAGTC	ACAACTACAG	AAGCATAATT	GAGCGGTTTG	CGACTTTCGG	TTCCAGCAAA	10860
GATGATATCC	GGCATCTTGC	CCCCACGGAG	ACTCTTGACA	CTAGACTCCC	CCAAAGCCCA	10920
ACGCAGACTT	TCTGTAATAT	TGGACTTTCC	AGATCCATTG	GGTCCAACAA	CTGCCGTCAC	10980
ACCTTGGTCA	AAAACGACCT	TGGTCTTATC	AGCAAAAGAC	TTGAACCCCT	GAATTTTCGAT	11040
TTCTTTTAAA	TACATGAATC	CAGCCCCCTC	TCAACGGCAT	TTTTTGGCAGC	TTCTTGCTCT	11100
GCTAATTTCT	TAGAACGACC	TTGGCCTTGA	CCGATGCTCT	TACCTTCAAC	AAGAACTTCT	11160
ACATCAAAAA	CCTTATCGTG	AGCAGGCCCT	GTTTCAGAAA	TCACCTGATA	ACGAATAGCC	11220
ACATCACCAT	TGACCTGAAG	CAACTCTTGG	AGATGGGTTT	TATAGTCTGT	AATCATCTCA	11280
AACTCGCCTG	CTTCAACCTT	AGGAATCATG	ACTTGATAGA	TAAATTCCTT	GACCTTGGCC	11340
ACATCCTTAT	CCAAAAGAAG	GGCACCAAGA	AAGGCTTCAA	AGGCATCACC	AAGAATGGTG	11400
TCACGATTGC	GACCACCTGA	TTTTTCTTCC	CCTTTACCCA	ACTTGATAAA	CTGGTCAAAC	11460
TGGCAATCAC	GCGCAAAACC	AGCTAAACTC	TCCTCACGGA	CAATCATAGC	ACGGAGTTTT	11520
GATAGGTCAC	CTTCAGGCTT	TTTAGGATAT	TTTTTATATA	GATATTCTGA	AATCAATAAC	11580
TGTAGAACAG	CGTCTCCTAA	AAATTCCAAG	CGTTCATTGT	GTGAAATTTT	TAAGAGGCGG	11640
TGCTCATTGG	CATAACTCGT	ATGAGTAAAG	GCAGTTTCCA	GTAACTTTTT	GTCTGCAAAT	11700
TCGATTGCAA	AATGATTCTT	TAGTACAGTT	TGTAATTCTT	TCATACCAAC	CTCTTTCTAA	11760
CTGATAATAG	TCCTTTTTAT	TATATCAAAA	AAAGCCCCCT	GAGTCACTCT	AAAACGGGAC	11820
TGGAAAGCAT	TTGGGAATTC	TTTAGACAGA	GATTCTCAGT	TTTAGCGGCA	AATTTGGGTC	11880
AGGATAAAGA	AAAAAGCCCT	ATTAAAGGCT	TTTTAGGATG	TTTACATCCA	CCCTGAGGGA	11940
ATCGAACCCC	CATCTCAAGA	ACCGGAATCT	TACGTGATAT	CCATTACACT	AAGGGTGGAA	12000
ACTTGTTTTA	TTATAACAGA	AATTTGCTCT	AATAACAAGT	TTTTTGGTCA	AAGACCCCGT	12060
CTTAGTGGGA	AGCATCCCCA	TTCCAGATGG	AGTTTTTCAC	GATCACATAA	TCAACGTGTT	12120
TAAGGTCAGC	AACCTGACGT	CCACCTGCAT	AAGAAATAGC	ACTTTGAAGG	TCTTGTTCCA	12180

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TCTCAGTTAA AGTGTCTTGC AGATGACCTT TAGCAGGAAG CAAGATACGT TTGCCTTCCA	12240
CATTTTGTGTA AGCACCTTTT TGATATTGTG AGGCTGAACC ATAATATTCT TTGAACTGTT	12300
CACCATCGAC TTCAATCGTT TTCCCTGGAC TTTCAATGTG TCCTGCAAAG AGGGAACCAA	12360
TCATGATCAT GCTAGCACCG AAGCGGATAG ACTTAGCAAT ATCACCGTGA GTACGAATTC	12420
CTCCATCAGC GATAATCGGT TTACGCGCAG CCTTGGCACA CCAGCGTAGA GCAGCCAACT	12480
GCCAACCACC TGTACCAAAA CCAGTCTTAA CCTTGGTGAT ACAAACCTTA CCAGGACCGA	12540
TTCCGACCTT AGTAGCATCC GCACCAGCAT TTTCCAATTC ACGCACAGCT TCTGGTGTTT	12600
CCACATTTCC AGCAATGACA AAGGTATCTG GCAATTCTTT CTTGATGTGT TGAATCATAG	12660
AAATCACGCT ATCCGCATGA CCATGAGCAA TATCAATAGT GATATACTCA GGAGTATCAG	12720
CCTTGAGCTG GCTAACAAAA TCATACTCAT AATCCTTAAC ACCGACAGAG ATAGAAGCAA	12780
TGAGCCCTTG ATTGTGCATT CGTTTAATAA AAGGAATGCG TCCTGCCTCA TCAAAACGGT	12840
GCATAATGTA GAAGTAACCA CCTTTAGCCA GTTGCTCTGC TACATTTTCA TCCAAAATCG	12900
TCTGCATATT CGCTGGCACA ACAGGTAGTT TAAAGGTGTG ATTTCCCTAAA GTGACACTTG	12960
TATCCGCTTC TGCACGGCTT TTAATGACAC ATTTATTTGG AATCAATTGA ATATCTTCGT	13020
AATCAAAAAT TGGAAATTCA TTTAACATAT CGATGTCTCG TTTCTTTTGT AATGACCTAC	13080
CTATGCTCTT GCATCACTAC GCCTTTTCCG ACGTTTCCTG G	13121

(2) INFORMATION FOR SEQ ID NO: 127:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9578 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 127:

CCGAATGCAA TGTTTACGGT TGAACCTGAA AATGGACATC AGATTTTAGC AACAGTTTCT	60
GGTAAAATTC GTAAAACTA TATTCGTATT TTAGCGGGAG ATCGTGTTAC TGTCGAAATG	120
AGTCCATATG ACTTGACACG TGGACGTATC ACTTACCGCT TTAAATAATC GAAAAACTTG	180
GAGGGATAAG AAATGAAAGT AAGACCATCG GTCAAACCAA TTTGCGAATA CTGTAAAGTT	240
ATTCGTCGTA ATGGTCGTGT TATGGTAATT TGCCAGCAA ATCCAAAACA CAAACAACGT	300
CAAGGATAAG ATAGAAAGGA GAAACATGG CTCGTATTGC TGGAGTTGAT ATTCCAAATG	360
ACAAACGCGT AGTAATCTCA TTGACTTATG TTTATGGTAT CGGACTTGCA ACATCTAAGA	420
AAATTTTGGC TGCTGCTGGA ATCTCAGAAG ATGTTTCGTGT ACGTGATCTT ACATCAGATC	480

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AAGAAGATGC	TATCCGTCGT	GAAGTGGATG	CAATCAAAGT	TGAAGGTGAC	CTTCGTCGTG	540
AAGTAAACTT	GAACATCAAA	CGTTTGATGG	AAATCGGTTC	ATACCGTGGT	ATCCGTCACC	600
GTCGTGGACT	TCCTGTCCGT	GGACAAAACA	CTAAAAACAA	CGCCCGCACT	CGTAAAGGTA	660
AAGCTGTTGC	GATTGCTGGT	AAGAAAAAAT	AATATAGGAG	GTAAAAGTCT	TGGCTAAACC	720
AACACGTAAA	CGTCGTGTGA	AAAAGAATAT	CGAATCTGGT	ATTGCTCATA	TTCACGCTAC	780
ATTTAATAAC	ACTATTGTTA	TGATTACTGA	TGTGCATGGT	AATGCAATTG	CTTGGTCATC	840
AGCTGGTGCT	CTTGGTTTCA	AAGGTCTCTG	TAAATCTACA	CCATTCGCTG	CTCAAATGGC	900
TTCTGAAGCT	GCTGCTAAAT	CTGCACAAGA	ACACGGTCTT	AAATCAGTTG	AAGTTACTGT	960
AAAAGGTCCA	GGTTCTGGTC	GTGAGTCAGC	TATTCGTGCG	CTTGCTGCCG	CTGGTCTTGA	1020
AGTAACAGCA	ATTCTGTGATG	TGACTCCAGT	GCCACACAAT	GGTGCTCGTC	CTCCAAAACG	1080
TCGCCGTGTA	TAATCATCGC	ATTACACTGC	TTTTCTGTTA	AGAGGGAGTA	ACTAAATGAT	1140
CGAGTTTGAA	AAACCAAATA	TAACAAAAAT	TGATGAAAAT	AAAGATTATG	GCAAGTTTGT	1200
AATCGAACCA	CTTGAACGTG	GCTACGGTAC	AACTCTTGGT	AACTCTCTTC	GTCGTGTACT	1260
TCTAGCTTCT	CTACCAGGAG	CAGCTGTGAC	ATCTATCAAC	ATTGATGGTG	TGTTACATGA	1320
GTTTGACACA	GTTCCAGGTG	TTCGTGAAGA	CGTGATGCAA	ATCATCTCTGA	ACATTAAAGG	1380
AATTGCAGTG	AAATCGTACG	TTGAAGACGA	AAAAATCATC	GAAGTGGATG	TTGAAGGTCC	1440
TGCTGAAGTA	ACAGCTGGTG	ACATTTTGAC	AGATAGCGAT	ATTGAAATTG	TAAATCCAGA	1500
TCATTATCTC	TTTACAATCG	GTGAAGGTTC	TTCTCTAAAA	GCGACTATGA	CTGTTAACAG	1560
TGGTCGTGGA	TATGTACCTG	CTGATGAAAA	TAAAAAGGAT	AATGCACCAG	TTGGAACACT	1620
TGCTGTAGAT	TCTATTTATA	CACCAGTTAC	AAAAGTCAAC	TATCAAGTGG	AACCTGCTCG	1680
TGTAGGTAGC	AATGATGGTT	TCGACAAATT	AACCCCTTGAA	ATCTTGACAA	ATGGAACAAT	1740
TATTCCAGAA	GATGCTTTAG	GGCTTTCAGC	ACGTATTTTG	ACAGAACATC	TTGATTTGTT	1800
TACAAATCTT	ACTGAGATTG	CTAAGTCAAC	TGAAGTGATG	AAAGAAGCTG	ATACTGAATC	1860
TGACGACCGT	ATTTTAGATC	GTACGATTGA	GGAAGTGGAC	TTGTCTGTGC	GTTCATACAA	1920
CTGTTTAAAA	CGTGCCGGTA	TCAATACTGT	GCATGATTTG	ACAGAAAAAT	CTGAAGCAGA	1980
GATGATGAAA	GTACGAAATC	TTGGACGCAA	GAGTTTGGA	GAAGTGAAAC	TCAAATCAT	2040
TGATTTGGGT	CTTGGATTAA	AAGATAAATA	AAGGAGGAAT	ACATGGCTTA	CCGTAAACTA	2100
GGACGCACTA	GCTCACAACG	TAAAGCAATG	CTTCGCGATT	TGACAACTGA	CCTTTTGATC	2160
AACGAATCAA	TCGTGACAAC	TGAAGCTCGT	GCTAAAGAAA	TCCGTAAAAC	TGTTGAAAAA	2220



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ATGATTACTC	TAGGTAAACG	TGGTGATTTG	CATGCACGTC	GTCAAGCAGC	TGCTTTCGTA	2280
CGTAATGAAA	TCGCATCTGA	AAACTATGAT	GAAGCAACTG	ATAAGTACAC	TTCTACTACA	2340
GCACTTCAAA	AATTGTTCTC	AGAAATCGCA	CCTCGTTATG	CTGAACGTAA	CGGTGGATAC	2400
ACTCGTATCC	TTAAAACTGA	ATCACGTCGT	GGTGATGCAG	CGCCAATGGC	GATCATCGAA	2460
TTAGTATAAA	ATCATCAATT	TTGTTGAGTG	TTATGATGAT	GGAGTCTTGT	GCTCTTAGTC	2520
TAGCTCTGGT	CTACCGCTAG	GATTTTCGGTC	CTAGCGGGAA	CACTCATCAT	AAGTTGGGAT	2580
AGTAGACGCT	TGTTTACGAA	ATTGTTTTTT	TCTTAAGAAC	AACTTCGTAA	GCAGGCGTTT	2640
TTGAGTATTT	TCGTTAGAAT	TATGCTATAC	TATTTGAAAA	GAATCCTGTT	TAATGTTAAG	2700
GTTTCTTATT	TTAAGAAGAA	TTGGAGTTTA	CTTATGAAAG	CCATTATAAC	TGTTGTTGGT	2760
AAAGATAAAT	CTGGAATTGT	TGCAGGTGTT	TCTGGTAAAA	TTGCAGAATT	AGGATTGAAT	2820
ATTGACGATA	TCTCTCAAAC	TGTCTTGGAT	GAATATTTTA	CGATGATGGC	TGTTGTATCT	2880
AGTGATGAAA	AGCAAGATTT	TACCTATCTT	CGTAATGAAT	TTGAAGCTTT	TGGGCAAAC	2940
TTGAATGTAA	AAATCAATAT	TCAGAGTGCA	GCGATTTTCG	AAGCTATGTA	TAATATCTAG	3000
GAGGTCATCA	TGGATATTAG	ACAAGTTACT	GAAACCATCG	CCATGATTGA	GGAGCAAAAC	3060
TTGATATTA	GAACCATTAC	CATGGGGATT	TCTCTTTTGG	ACTGTATCGA	TCCAGATATC	3120
AATCGTGCTG	CGGAGAAAAT	CTATCAAAAA	ATTACGACAA	AGGCGGCTAA	TTTAGTAGCT	3180
GTTGGTGATG	AAATTGCGGC	TGAGTTGGGA	ATTCCTATCG	TTAATAAGCG	TGTATCGGTG	3240
ACACCTATTT	CTCTGATTGG	GGCAGCGACA	GATGCGACGG	ACTACGTGGT	TCTGGCAAAA	3300
GCGCTTGATA	AGGCTGCGAA	AGAGATTGGT	GTGGACTTTA	TTGGTGGTTT	TTCTGCCTTA	3360
GTACAAAAAG	GTTATCAAAA	GGGAGATGAG	ATTCTCATCA	ATTCCATTCC	TCGCGCTTTG	3420
GCTGAGACGG	ATAAGGTCTG	CTCGTCAGTC	AATATCGGCT	CAACCAAGTC	TGGTATTAAT	3480
ATGACGGCTG	TGGCAGATAT	GGGACGAATT	ATCAAGGAAA	CAGCAAATCT	TTCAGATATG	3540
GGAGTGGCCA	AGTTGGTTGT	ATTCGCTAAT	GCTGTTGAGG	ACAATCCATT	TATGGCGGGT	3600
GCCTTTCATG	GTGTTGGGGA	AGCAGATGTT	ATCATCAATG	TCGGAGTTTC	TGGTCCTGGT	3660
GTTGTGAAAC	GTGCTTTGGA	AAAAGTTCGT	GGACAGAGCT	TTGATGTAGT	AGCCGAAACA	3720
GTTAAGAAAA	CTGCCTTTAA	AATCACTCGT	ATCGGTCAAT	TGGTTGGTCA	AATGGCCAGT	3780
GAGAGACTGG	GTGTGGAGTT	TGGTATTGTG	GACTTGAGTT	TGGCACCAAC	CCCTGCGGTT	3840
GGAGACTCTG	TGGCACGTGT	CCTTGAGGAA	ATGGGGCTAG	AAACAGTTGG	CACGCATGGA	3900
ACGACGGCTG	CCTTGGCCCT	CTTGAACGAC	CAAGTTAAAA	AGGGTGGAGT	GATGGCCTGC	3960
AACCAAGTCG	GTGGTTTATC	TGGTGCCTTT	ATCCCTGTTT	CTGAGGATGA	AGGAATGATT	4020

GCTGCAGTGC	AAAATGGCTC	TCTTAATTTA	GAAAAACTAG	AAGCTATGAC	GGCTATCTGT	4080
TCTGTTGGAT	TGGATATGAT	TGCCATCCCA	GAAGATACGC	CTGCTGAAAC	TATTGCGGCT	4140
ATGATTGCGG	ATGAAGCAGC	AATCGGTGTT	ATCAACATGA	AAACAACAGC	TGTTCTGTATC	4200
ATTCCCAAAG	GAAAAGAAGG	CGATATGATT	GAGTTTGGTG	GTCTATTAGG	AACTGCACCC	4260
GTTATGAAGG	TTAATGGGGC	TTCGTCTGTC	GACTTCATCT	CTCGCGGTGG	ACAAATCCCA	4320
GCACCAATTC	ATAGTTTTAA	AAATTAAGAA	AATAGGAGAA	ATTTTAAGTT	CTATTTAAGA	4380
TTAGACGTGT	ATACTATAAT	CATTAAATAA	AGACCTCCTA	ATATTATTTG	AAACAGATAA	4440
CACTGAATTA	GTTTGAATTT	GATTTTCATC	TAATATCTTT	ATTTAATGAA	CTCCTAAACT	4500
TTTTCATAAT	AATCTCCTTC	AAAAGTCGCC	TGTATGGGTG	GCTTTTATTT	TATCATTCAT	4560
GATATAATAG	AAGCAAACGG	AGGACGGAAA	ATGGTAAAAG	TACGATTGTA	TTTGGTACGT	4620
CATGGCAAGA	CCATGTTTAA	CACGATTGGT	CGCGCGCAAG	GTTGGAGCGA	TACTCCCTTA	4680
ACTGCTGAAG	GTGAACGAGG	GATTCAAGAG	TTAGGAATCG	GTTTGCGAGA	ATCTGATCTA	4740
CAGTTTGAGC	GTGCTTATTC	GAGTGATTCT	GGTCGTACCA	TTCAGACCAT	GGGAATTATC	4800
CTTGAAGAAC	TTGGCTTGCA	GGGGGAAATC	CCTTATCGCA	TGGACAAGCG	TATCAGAGAA	4860
TGGTGTTTCG	GTAGTTTTGA	TGGAGCCTAT	GATGGCGATC	TTTTCATGGG	CATTATTCCT	4920
CGTATCTTTA	ATGTGGACCA	CGTTCACCAA	TTGTCTTATG	CTGAACTGGC	TGAGGGCTTG	4980
GTAGAGGTCG	ATACAGCTGG	TTGGGCTGAA	GGCTGGGAAA	AACTCAGTGG	CCGAATCAAG	5040
GAAGGCTTTG	AAATGATTGC	AAAAGAAATG	GAAGATCAAG	GTGGAGGTAA	CGCCCTTGTT	5100
GTCAGCCATG	GAATGACTAT	TGGAACCATT	GTTTATCTGA	TTAATGGCAT	GCATCCGCAT	5160
GGTCTGGATA	ATGGTAGCGT	GACAATCCTT	GAATATGAGG	ACGGCCAGTT	TAGGGTTGAA	5220
GTTGTGCGTG	ACCGTAGTTA	CCGAGAGCTA	GGACGTGAGA	AGATGGAAGA	AGGCTCTATT	5280
TAATCAGTCT	AGACTTGCTT	GCCATGAGCT	AGGGATTTGA	TAAGAATATC	AAGATAAGAA	5340
AAAACAGCCG	AGGGCACTCC	TTTCGGCTGT	TTTTGATGTG	GAAAACTAAA	GTGTAATGCT	5400
ATTGCTTTTA	GAGATTTTCA	TAAACAAGAG	CAAGGAACCT	ACTGTTAGAA	CAGTCAGGAT	5460
AGTTGACAAG	GTTGCGGCTA	CACCGTAATT	TCCTCTGAGA	ACCTCTGTAT	AAATAGCTAC	5520
AGTCATTGTT	CTTGTTTTGA	CATTGTAGAG	GAGGATAGAA	GTAGAGAGTT	TTGAAATCAT	5580
TGTGACTCAA	GATAAGATGG	CTCCAGAAAT	GATACCAGAT	AGCATCATTG	GAGTTGTAAT	5640
CTTAGCAAAG	GTATTGAGAC	GACTACTTCC	TAAGCTTTCA	GCAGCTTCTT	CAATACTTGG	5700
TGCTATTTGT	TGTAAGCTAG	CAACAGATGA	GCGAATAGTA	TAAGGTAATC	TTCTGGCAGA	5760

880  
TAGAGACATA ATCAAGATGA AAGCAGTCCC TGTAATCATA AGAAATCCAC TTCCAAATAG 5820  
ACCAGTATTG AAGGAAGAAA TGAAGGCAAT CCCTAGAACG GTTCCTGGTA CAATATAAGG 5880  
TACCATACTG AGGCTGTCAA TTAAGTTTGT AAACAAATTC CGTTTTCTAA CGGCTAGGTA 5940  
GGAGATAAAT GTCGCAAATA GAACAAC TAG AACTAAGGCA ATCAAAGGGA TACGAATGGT 6000  
ATTGAAAATA GCAGATCCCA TACGATGGAA AGCTACCTTG TAACTGTTTG GAGAATAACC 6060  
TTTAACAGAT ACCATACCTG ATGTTTTTAG GAAAGAGGTA TAAATTAAGT AGATTGAGG 6120  
TAAACAGAG ATAAAGATAA TTCCGTAGAC TGTTCATAA ATGGCAGCCA TTTTTCCTTT 6180  
TG TAGTTTTT TTAGGCTCAA TTGGATGGAG CAGATTCATG CTGAAACTGT AGCGGTTTGC 6240  
AATGTGTTTT TGGATAAGGA AAATTGCCAA GGCAATGATA ATCGCCATAA TTGCAAAAGC 6300  
AGAATTCCT CCAACCTCGC TAATAAATTG GGTATAAATC AGGACAGGGA AAGTCCGATA 6360  
CCCTTCGCCA ATCAACATAG GCGTTCCAAA GTCTGAGAAT GCTCTCATAA ATACAAGCAA 6420  
GGAGCTGCTA GTAAGGTGG AACTAGGAGA GGTAAAACAA CCGTTACGAT AGGTTTAAAT 6480  
CCGAAGGACC CCATGCTTTC AGCTGCTTCA AGTAGAGAAT TGTCAATACT GTTCATTGTT 6540  
CCAGCAACAT ATAGAAATAC CAGTGGGAAT AGTTGCAGTG TAAAGACAAG TACAATTCCT 6600  
TTGAATCAAT AAATATCGAT AGCTGGAAGA TAAAGGGCAT TTGTCAAAAA TTTAGTGATG 6660  
ACCTCATTTT GTCCTAGCAA GAGAACCCAG GAGTAGGCTC CTACGAAAGG AGCTGACATG 6720  
GAAGCAATGA TAATCAATAT TTGTAGAAAT TTCTTCCCCT TGAAGTCATA CATAGAGAAG 6780  
AGATAAGCTA ATAGGGTTCC TACAATAAG GAAGTGATAG TAGCGGTAAT GGAAACCTTG 6840  
AAACTGTTGA CTAGTGTCTC AGAGTAGTAG GCTTTACTAA AGAAAGTGAC AAAATTAGCT 6900  
AGTGAGAATT GTCCTTCATG TATAAGTGCT TGCTTGAGCA CGGTAACGAT AGGATAAACG 6960  
AGAAAGATAG GATAGGTAAG AAAGAGGAAG AAAGAGGAAA CTGTCCAAAT ATTTAGTTTT 7020  
TTACGTTCCA TGGTTGACTC CTTTTATCAG GTTTTGGGAA CCATCTGCAG AAAAGATGTT 7080  
TAATTTTTGC GTATTGATTC GTAGACGAAT ACGATTGCCT TTTTGTAGAT CTTCTTCAAA 7140  
AGTTGATTCT TCACTAACTT GAATTTTTGA GGCAAAACCT GTCTCAATGA AATAATCCGT 7200  
ATTTAGTCCA AGATAGACGC TATCTCTAAT AGTTCCTTCA ATATCTCCAG ATTCATCTTT 7260  
GATAAACTCT TCGGGACGAA TGCTTACATG AATAGCTTGC TCCTCAACCT GATCAAGAGC 7320  
TGGCATTCTGA AGGGCATAGC CATCTGAAAA GACGATATAA GCGCCGTCGC TCCGTTTTTC 7380  
AAGATTGGCA GGGATAATAT TTGTGCGTCC GATAAAGGTT GCCACAACT CATTAGCTGG 7440  
TTTATGATAG AGTTCTTTTG GTCGGCCGAT TTGTTGGATC ACCCCATCTT TCATAACAGC 7500  
AATTTGGTCT GAAATAGCCA TGGCTTCTTC TTGGTCGTGG GTTACATAAA CAGTTGTAAT 7560

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TCCCACTTCG	TGTTGGATTT	CTCGGATGGC	TTGACGCATA	TCCAAGCGAA	GTTTGGCCTC	7620
CAGATTACTA	AGTGGCTCGT	CCATGAGGAG	AACACTTGGA	TTAACCGCTA	AGGCGCATGC	7680
CAAGGTGACA	CGTTGTTGTT	GTCCACCACT	GAGTTTATCG	GGCTTTCGAT	CCGCATATTG	7740
AGCAATTTGC	ATGAGTTCAA	GATACTTGTT	GGTCTGTTGA	ATCAATTCTT	CTTTTGGAAC	7800
CTTCTTTTGC	ATAAGACCAA	AAGCAACGTT	GTCTCGGACA	GTCAAATGTG	GGAAAATAGC	7860
GTAGTTTTGG	AAAACCATCC	CGATATTGCG	TTTGCTGGGT	TCCATATTAT	TGATTTTTGT	7920
ATCATCGAAG	TAAAATTCTC	CACCTTCGAT	ACTGTTGAAA	CCTGCAATCA	TACGAAGAAG	7980
GGTCGTTTTC	CCACATCCTG	AAGCTCCAAG	AAGGGTAAAG	AGACTTCCTT	TTGGAATTGT	8040
AATGTTCAAA	TTCTCAATAA	CAGGGACATC	GTGGTAGATT	TTTTTGGCGT	TAATAATTTT	8100
GATCTCACTC	ATAGTGAACC	TCTTTTACTG	TTTAGATTGG	ATATCTGTAA	AGACTTCGTT	8160
GTATTTCTTA	ACGATATCTG	ATTTATTCTT	GATGACATAA	TCATAATCTT	CAGTGAGTGT	8220
TTTGATTTTG	TCAATTGGTT	TCATGTTTTT	GCTTGTTTTA	GCATTTTTTAC	GAACAGGACG	8280
GTTAGTAGTG	GTTGTACCAA	GTGTATCTTG	TACTTCTTGA	GAGATAATAA	AATCGATAAA	8340
TTTCTTGGCA	TTTTCCATAT	TTTTAGATTT	TTTAACGATA	GCAGCACTAG	CAGGTAGGAA	8400
GACGGTTCCT	TCTTTTGGAT	AGACTACCTT	AATGTTAGCT	CCGTCATTTA	AGAGTTTAAC	8460
TGCTGGATCT	TCATAAGAGA	GACCAACAGC	CATTTCTCCA	TCAGCGACTA	CTTTATAGAC	8520
ACTAGATGAA	CTTGAACCGA	TTTTACCATC	AATAAGGTG	AAAAGATCTT	TTACATAAGA	8580
CCAAGCCTTA	TCATCTTTGT	AACCACCTTG	AGCTTGTAGC	ATATTTGTTA	ATTGAGCAAA	8640
GGCGCTAGAA	GAGTTTGCTG	GGTCAGCAGT	TGCGATTTTT	CCTTTTAGTT	CAGGTTTGAA	8700
AAGATCGTTA	TATCCTTCGA	TGTTCATGCC	TTTAGTTAAA	TCAGGGTTGA	CGATTAAAAC	8760
ACTACCATCT	AGTGTATAAG	GAGTAGAGTA	GCCAGTTGTG	TTTTGATATT	CTTTGATAAC	8820
ATTATCATTT	TCTTTTGAAG	TATAGTTTTT	AAAGAGTTCT	CCGTGGGTAG	TATATTGTGT	8880
ATAAGAACCA	CCAAAGATAA	CATCAGCTAC	AGGAACTTCT	TTTTCTGACT	CTAGTTTTTT	8940
GAAAAGTTCT	CCAGTACCAG	CTTGAATCAG	TTCTACTTTG	ATACCATATT	TTTCTTCAAA	9000
GGCAGGAATA	GTTGCTCCAA	TTAAGCCCTC	TGAGTTTGGT	GAATAAACGA	CTAGCGAACC	9060
GCCGTCTCCT	TTATCAGATG	AACTGTCATC	GGCAGATTCA	TTAGAAGAAC	AAGCAGCATA	9120
ATACATCCAT	TTCTTTTTCA	TGATGGATAC	CTCCGTTGTG	TTATTTAAGT	TTATTTTAAA	9180
ACAATGTAAG	CGTTTTTAAA	ACATACAATT	CTATTCTATA	GTGTATTGAA	TCTATAACAG	9240
TACACTTTGA	CTGCTAAAAT	ATTTCTATAA	ATTAATTTGA	CTTTCCTGAT	AGAGATGTTC	9300



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ACATCTTATT TCAATTCAC	ATATTAGAGT AAAATTCTCT	ACAAAAAGAA GAATAGCCTA	9360
TTTTACTATT CTTCTGAGTG	ATTTCAATTC CTTTGGGGAA	ATATGGAGAT ACTTTTAAA	9420
TCCTGACAAA TGGTTGTTTC	TTTTTCTAAA TCGGTGATAC	TGTATCGGAG AATGCGCGTG	9480
AGGTCACAAA GGCTGCGATA	GAGCTTCTAT GGAGAATTTT	TTTTTGGAGA GATTTTAA	9540
AGGAATGAGA CATCCGCTAC	CTCCTTGGA GGTTTT		9578

## (2) INFORMATION FOR SEQ ID NO: 128:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 13440 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 128:

CGGGCTGTTG TGACGATTCT	TATTTCTATC TGTGTTATCT	TTTTGGGAAC TATTTTGGGT	60
GTTGTCTTGG CTTTGGGCA	ACGTTCAAAG TTAAACCGC	TTGTTTGGTT GGCCAAC	120
TACGTTTGGG TTTCCGTGG	GACACCGATG ATGGTTCAAA	TTATGATTGC CTTTGCTCTT	180
ATGCATATCA ATGCTCCGAC	TATTCAGATT GGAATTTTAG	GTGTTGATTT TTCGCGCTG	240
ATTCCAGGGA TTTTGATTAT	CTCTATGAAT AGTGGTGCTT	ATGTTTCGGA GACTGTTCGT	300
GCCGGAATCA ATGCGGTTCC	AAAAGGTCAG CTAGAAGCGG	CTTATTCGCT AGGGATTCGT	360
CCTAAAAATG CGATGCGTTA	TGTGATTTTG CCACAAGCAG	TCAAAAATAT CTTGCCAGCA	420
TTGGGGAACG AATTTATCAC	CATTATCAAG GACAGCTCCC	TCTTATCAGC TATTGGGGTC	480
ATGGAGTTGT GGAATGGGGC	TACAACAGTT TCTACAACAA	CCTATCTACC TTTAACACCA	540
CTTTTATTTG CAGCATTTTA	CTACTTGATT ATGACCTCTA	TTCTGACAGT AGCCTTGAAA	600
GCTTTTGAAA AACATATGGG	ACAAGGAGAT AAGAAATAAT	GACAGAAACC TTGATAAAAA	660
TTGAAAATTT ACATAAATCC	TTTGGAAGA ATGAAGTATT	GAAGGGCATC AACCTCGAGA	720
TTAAAAGAGG AGAAGTTGTC	GTTATCATCG GTCCTTCAGG	GAGCGGGAAA TCTACCTTGC	780
TTGCTCTAT GAATTGTTG	GAAGAAGCAA CCAAGGGGAA	GGTTATCTTT GAGGGAGTCG	840
ATATTACGGA CAAGAAGAAT	GACCTGTTTG CCATGCGTGA	GAAGATGGGC ATGGTTTTTC	900
AACAATTCAA TCTCTTTCCT	AATATGACTG TGATGGAAAA	TATCACCTTG TCCCCTATCA	960
AGACCAAAGG TGACAGTAAG	GCCGTTGCAG AGAAAAGAGC	TCAGGAACTT TTGGAAAAAG	1020
TTGGTTTGCC AGATAAGGCA	GACGCTTATC CACAGAGTTT	GTCAGGTGGC CAGCAACAGC	1080
GGATTGCCAT CGCGCGTGGG	TTGGCTATGG AACCAGATGT	TTTGCTCTTT GACGAGCCAA	1140

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CTTCAGCCCT	AGATCCTGAG	ATGGTTGGAG	AAGTTCTGGC	TGTTATGCAA	GATCTAGCCA	1200
AGTCAGGAAT	GACCATGGTT	ATCGTAACAC	ATGAGATGGG	ATTTGCCCCG	GAGGTGGCAG	1260
ATCGTGTCAT	CTTTATGGCA	GACGGTGTGG	TTGTTGAAGA	CGGAACACCT	GAGCAGATTT	1320
TTGAACAAAC	CCAAGGACAA	AGGACTAAAG	ACTTCTTGAG	TAAGGTTTTA	TAAGTTAGCT	1380
TTGTTTAGCT	ATTTGTAGCC	AGCTTTAAAC	GTTAAAGAGA	AGATTAGTGA	AAAGCTCAAC	1440
CAGAGCTTTT	TCTTATAGTT	TAAAGCTATA	GGATTGCCTA	GGAAAGAAGT	GTTAGAGCTA	1500
CATTGTATTT	TTTGGTATAA	TTAAAGATAT	TTGTAAGAAA	AGAGAAGTGA	TATGACACAG	1560
ATTATTGATG	GGAAAGCTTT	AGCGGCCAAA	TTGCAGGGGC	AGTTGGCTGA	AAAGACTGCA	1620
AAATTAAAGG	AAGAAACAGG	TCTAGTGCCT	GGTTTGGTAG	TGATTTTGGT	TGGGGACAAT	1680
CCAGCCAGCC	AAGTCTACGT	TCGCAACAAG	GAGAGGTCAG	CCCTTGCGGC	TGGTTTCCGT	1740
AGCGAAGTAG	TACGGGTTC	AGAGACCAT	ACTCAAGAGG	AATTGTTAGA	CCTGATTGCT	1800
AAATACAATC	AGGATCCAGC	TTGGCATGGG	ATTTTGGTTC	AGTTGCCATT	ACCAAAACAC	1860
ATTGATGAAG	AGGCGGTTCT	ATTGGCTATT	GACCCAGAAA	AGGATGTGGA	TGGTTTCCAT	1920
CCTCTAAACA	TGGGGCGTCT	TTGGTCTGGT	CATCCAGTCA	TGATTCCTTC	GACACCGGCA	1980
GGAATTATGG	AAATGTTCCA	TGAATATGGG	ATTGACTTGG	AAGGTAAAAA	TGCAGTCGTC	2040
ATCGGTGCGT	CCAATATTGT	CGGAAAACCT	ATGGCCCAGC	TTCTTTTGGC	AAAGAATGCA	2100
ACAGTAACCT	TGACTCACTC	ACGTACTCAT	AATCTTTCCA	AGGTGGCTGC	AAAAGCAGAT	2160
ATTCTGGTTG	TTGCAATCGG	TCGTGCCAAG	TTTGTGACTG	CTGACTTTGT	CAAACCAGGT	2220
GCGGTAGTCA	TTGACGTTGG	GATGAACCGC	GATGAAAATG	GTAAGCTCTG	TGGGGATGTT	2280
GATTATGAGG	CGGTTGCCCC	ACTTGCTAGC	CACATTACGC	CAGTCCCCTG	AGGTGTCGGT	2340
CCTATGACCA	TTACTATGCT	GATGGAGCAA	ACCTATCAGG	CAGCACTTAG	GACATTGGAT	2400
AGAAAATAAG	ATAAAAATTT	TCTGAGGAAA	GTGTATTTTC	TATAGCTATA	TCTAAAATGA	2460
TAGAAATGAA	TATTAAATTT	TAGAAATAAG	TTTATAAAAG	GAGGTTTGCG	CCTCCTTTTT	2520
GTTGTATAAT	GGAGTGAGGT	GATTAGATGA	TTTTAAAAAT	TTATAATGGG	GAATATAGTT	2580
TACAATGGGA	TGGAATATAC	TACTTAGCAC	TAATTGATTA	TCCAAATATT	CAAGAGTGGG	2640
AATTAGAAAA	AATTGCTAAA	TTTATAGCTT	ACGAAAAACT	TCATAAACGT	CAAACAAGTA	2700
TTGAGTGTGC	TGATTCTTGT	TTAAAAAAG	AAATTTTAGA	TTACATCTGT	CAGCATCCCT	2760
TTCTGCCACC	ATTTACTCCT	ACAGATAAAA	GAGTAGCCTC	GACTTATGAC	CTACATAAGA	2820
GGTTAGTGAC	TTCAGACTAC	TGTAGTCATA	CTACGACTAT	AGATGCAGCG	ATTTCTATTT	2880

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TTAAAACTGG	TCGTCTTTTA	TCTGCTGTGA	AAGCCTTTGG	GCGAGATGCT	GAGGAGTTGG	2940
TTTTGGATAG	TCGAAATGCT	GCATCTGATC	CGATAGATTA	TTTTGACTAT	GTCATGTTAG	3000
GGTGGTCAAA	TACAAGTTCT	GGTTATCGAT	TGGCGATGGA	GCGTTTATTA	GGTCGAGCTC	3060
CTTCAGAGAA	AGAATTACAA	GACAAGTTTA	TTCCTGGAGT	AAGTTTTCAT	TTTATCTATA	3120
CAGATTTGAT	TAAAGTTCCT	GGTTATATTT	TTGATGGTTA	CCATGCTGTA	AAAATTAAGG	3180
ACATGCTTAA	TTTATTAAGT	GAGTTGTATA	TTTGCATTAT	TCCAACATCAT	AATAAGAGCC	3240
AATTTGAAAA	TATTATTCCA	ACCAAAATAC	AAGATAGGGT	GTATTATCTT	GACTATGCTG	3300
GAGAAGACTT	AGAAGAGTGG	ACTAAGAAAG	TCTATCAAGT	TGTTTTAAAA	CAATCAGATA	3360
AAGGATAGTT	GAGGAAAAAA	CGATGAAAGT	GATTGATCAA	ACCTTACTAG	AAAAAGTCAT	3420
TATTGAACGT	TCTTGTACAA	GTCATAAAGG	AGACTACGGT	CGTCTGCTGT	TGCTTGGTGG	3480
GACTTATCCT	TATGGTGGTG	CCATCATCAT	GGCTGCTTTA	GCAGCTGTAA	AAAGCGGTGC	3540
AGGATTGGTA	ACCGTTGGAA	CGGACAGGGA	AAATATCCCT	GCTCTACACA	GCCATTTGCC	3600
TGAGGCTATG	GCCTTTTCTC	TGCAAGATCA	GTAATTGTTA	CAAGAGCAAT	TGGAGAAGGC	3660
AGAAGTTGTC	TTGCTGGGGC	CTGGTTTACG	AGACGATACG	TTTGGAGAAA	ATCTTGTA	3720
ACAGGTCTTT	GCTAGCTTAA	AAAAGAATCA	GATTTTGATT	GATAGTGGAG	GGGCCTTAAC	3780
CATCCTTGCT	AGGACAAGTT	TGTTGTTTCC	ATCTAACCAG	CTTATCTTAA	CTCCCCACCA	3840
AAAAGAATGG	GAAAAACTGT	CTGGTATTGC	TATTGAAAAG	CAAAACGAAG	GTACAACATC	3900
TAGTGCCCTG	ACTTCTTTCC	CTCAAGGAAC	AATTTTGGTA	GAGAAAGGTC	CAGCTACTCG	3960
TATTTGGCAA	GTTGGCCAGT	CTGATTATTA	CCAGTTAAAG	GTTGGCGGTC	CCTATCAGGC	4020
GACTGGTGGT	ATGGGTGATA	CACTGGCTGG	AATGATTGCA	GGATTTGCAG	GCCAATTTTCG	4080
ACAGGCCAGT	CTCTACGAAC	GTGTGGCAGT	AGCAACCCAT	CTTCATTTCAG	CCATAGCCCA	4140
AGAACTATCT	CAAGAAAATT	ATGTGGTCTT	GCCGACGGAA	ATTAGTAATT	GTCTTCCTAA	4200
AGTAATGAAA	AGATATGTCT	AAAATAGTTA	GACAAAAAAT	GTTGATAATT	TGTATCATTA	4260
TTCTTAATTC	ACAAAAAACG	AACGTTTAGT	ATTCTTCTTG	CTAAGAAACT	AAATTTGTTC	4320
GTTTTTTTAC	TCTTGTA	CTATTTTTGT	TAGAGTTGAT	TTGGTTTACA	TCCGTACTTA	4380
AATTGATTTG	TTAGAGCTCT	ACTTTTATTA	AAAAAATTCA	ATTTCAAGGA	TAAATAAGCA	4440
GTATTCATAA	GGTACTTTTA	GATGAAATAA	AAGCCTTTAC	ATGGTATAAT	AGAGGTAGCT	4500
CTTTAATGGA	GGTGTTTGAG	TGGAAAATCT	GAAGAAAATG	GCAGGTATCA	CGGCTGCTGA	4560
ATTTATCAAG	GATGGGATGG	TTGTAGGGCT	AGGAACAGGT	TCTACTGCCT	ATTATTTTGT	4620
CGAAGAAATC	GGTCGTCGAA	TCAAGGAAGA	AGGCTTGCAG	ATTACAGCTG	TGACGACTTC	4680

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TAGTGTGACC	AGTAAACAGG	CTGAAGGGCT	CAATATCCCG	CTCAAGTCTA	TTGACCAAGT	4740
AGACTTTGTC	GATGTGACAG	TCGACGGGGC	GGATGAAGTG	GATAGTCAGT	TTAATGGAAT	4800
CAAAGGCGGT	GGTGGTGCCC	TTCTCATGGA	AAAGGTGGTC	GCAACACCAT	CAAAAGAATA	4860
CATTTGGGTG	GTGGATGAAA	GCAAGCTGGT	CGAAAACTA	GGTGCTTTTA	AATTGCCAGT	4920
AGAAGTGGTT	CAGTATGGTG	CAGAGCAGGT	CTTTCGTCAT	TTTGAACGAG	CTGGCTACAA	4980
ACCAAGTTTC	CGTGAAAAAG	ACGGCCAACG	TTTTGTGACC	GATATGCAGA	ATTTTATCAT	5040
TGACCTCGCC	TTGGATGTCA	TTGAAAATCC	AATTGCTTTT	GGACAAGAAT	TGGACCATGT	5100
CGTTGGTGTT	GTGGAGCATG	GTTTATTCAA	CCAAATGGTG	GATAAGGTAA	TCGTTGCTGG	5160
ACGAGATGGA	GTTTCAGATTT	CAACTTCAAA	AAAAGGAAAA	TAGAAGGGGG	CATAAGATGT	5220
CTAAATTTAA	TCGTATTCAT	TTGGTGGTAC	TGGATTCTGT	AGGAATCGGT	GCAGCACCAG	5280
ATGCTAATAA	CTTTGTCAAT	GCAGGGGTTT	CAGATGGAGC	TTCTGACACA	CTGGGACACA	5340
TTTCAAAAAC	AGTTGGTTTG	AATGTCCCAA	ACATGGCTAA	AATAGGTCTT	GGAAATATTC	5400
CTCGTGAAAC	TCCTCTTAAG	ACTGTAGCAG	CTGAAAGCAA	TCCAAC TGGA	TATGCAACAA	5460
AATTAGAGGA	AGTATCTCTT	GGTAAGGATA	CTATGACTGG	ACACTGGGAA	ATCATGGGAC	5520
TCAACATTAC	TGAGCCTTTC	GATACTTTCT	GGAACGGATT	CCCAGAAGAA	ATCCTGACAA	5580
AAATCGAAGA	ATTCTCAGGA	CGCAAGGTTA	TTCGTGAAGC	CAACAAACCT	TATTCAGGAA	5640
CGGCTGTTAT	CTATGATTTT	GGACCACGTC	AGATGGAAAC	TGGAGAGTTG	ATTATCTATA	5700
CTTCAGCTGA	CCCTGTTTTG	CAGATTGCTG	CCCACGAAGA	CATTATTCCT	TTGGATGAAT	5760
TGTACCGTAT	CTGTGAATAC	GCTCGTTCGA	TTACCCTTGA	GCGTCCTGCC	CTTCTTGCTC	5820
GCATCATTGC	TCGCCCTTAT	GTAGGTGAAC	CAGGTAAC TT	CACTCGTACG	GCAAACCGTC	5880
GTGACTTGGC	TGTATCTCCA	TTTTTCCCAA	CTGTTTTTGA	TAAATTGAAT	GAGGCTGGTA	5940
TCGATACTTA	TGCTGTGGGT	AAAATCAACG	ATATCTTTAA	CGGTGCTGGT	ATCAACCATG	6000
ACATGGGTCA	CAACAAGTCA	AATAGTCATG	GAATTGATAC	ACTATTGAAG	ACTATGGGAC	6060
TTGCTGAGTT	TGAAAAAGGA	TTCTCATTCA	CAAACCTAGT	TGACTTTGAT	GCCCTTTACG	6120
GCCATCGTCG	TAATGCTCAC	GGTTACCGTG	ATTGCTTGCA	TGAGTTTGAT	GAACGCTTAC	6180
CTGAAATTAT	CGCAGCTATG	AGAGAGAATG	ACCTTCTCTT	GATTACTGCG	GACCATGGAA	6240
ATGACCCAAC	GTATGCAGGA	ACGGATCACA	CTCGGGAATA	TATTCCATTG	TTGGCCTATA	6300
GCCCTGCCTT	TAAAGGAAAT	GGTCTCATTC	CAGTAGGACA	TTTTGCAGAT	ATTTCAGCGA	6360
CTGTTGCCGA	TAACTTTGGT	GTGGAAACTG	CTATGATTGG	GGAAAGTTTC	TTAGATAAAT	6420



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TGGTATAAGA	TGACGCGCTA	TGCTTTGCTG	GTGAGAGGTA	TCAATGTTGG	TGGTAAGAAT	6480
AAGGTCGTCA	TGGCGGAGCT	TCGTCAAGAA	TTGACAAACT	TGGGACTGGA	AAAGGTTGAG	6540
AGCTACATCA	ATAGTGGCAA	TATTTTCTTT	ACTTCGATAG	ATTCCAAAGC	CCAATTGGTT	6600
GAAAAGCTAG	AGACTTTCTT	TGCAGTCCAT	TATCCATTTA	TTCAGAGCTT	TTCTTTACTG	6660
AGTCTAGAGG	ACTTTGAGGC	GGAAC TTGAA	AATCTACCAG	CTTGGTGGAG	CAGAGACTTG	6720
GCACGAAAAG	ATTTTCTCTT	TTACACTGAG	GGTTTGGATG	TGGACCAAGT	CATCGCGACA	6780
GTTGAAAGTT	TAGAGCTGAA	AGATGAAGTG	CTTTATTTTG	GAAAAC TTGG	GATTTTCTGG	6840
GGGAAATTTT	CTGAAGAATC	CTATTCTAAG	ACTGCCTATC	ATAAGTACTT	GCTGAAGGTG	6900
CCTTTCTACC	GCCACATTAC	TATTCGTAAT	GCTAAAACCT	TTGACAAAAT	TGGTCAAATG	6960
CTAAAAAAT	AATAAAGGAG	ACACACAATG	ACATTTTTAA	ACAAAATCCA	TGAAACTGCT	7020
ACTTTCCTGA	AAGAAAAGGG	AATTGCAGCC	CCTGAGTTCTG	GTCTAATCCT	TGGATCAGGA	7080
CTTGGAGAAT	TGGCAGAAGA	AATCGAAAAT	CCAGTTGTAG	TAGACTATGC	TGAGATTCCA	7140
AACTGGGGCC	GTTCAACAGT	AGTCGGTCAT	GCTGGTAAAT	TGGTATATGG	TGAACTGGCA	7200
GGTCGCAAGG	TCTTGGCTCT	TCAAGGGCGT	TTCCATTTCT	ATGAAGGGAA	TCCTCTGGAA	7260
GTGGTGACTT	TCCCAGTTCTG	TGTGATGAAA	GTTCTTGGAT	GTGAAGGTGT	TATTGTAACC	7320
AATGCAGCTG	GCGGTATCGG	ATTTGGTCCT	GGTACCTTGA	TGGCTATCTC	AGACCATATC	7380
AACATGACGG	GGCAAAATCC	ATTGATGGGT	GAAAAC TTGG	ATGACTTTGG	CCCACGTTTC	7440
CCAGATATGT	CTAGGGCCTA	CACACCAGAA	TACCGTGCCA	CTGCCCATGA	AGTGGCTAAA	7500
AACTTAATA	TCAAGCTTGA	TGAAGGTGTC	TATATCGGAG	TTACTGGTCC	GACTTATGAA	7560
ACACCAGCAG	AAATTCGTTC	CTATAAGACA	CTGGGAGCAG	ATGCAGTTGG	TATGTCTACG	7620
G TTCCTGAAG	TTATCGTG GC	AGCCCACTCT	GGCTTGAAAG	TTCTGGGAAT	TTCATGTATC	7680
ACTA ACTTTG	CGGCCGGTTT	CCAAGAAGAA	CTCAATCACG	AAGAAGTTGT	AGAAGTGACT	7740
GAACGTGTTA	AAGGTGATTT	CAAAGGCTTG	CTTAAAGCGA	TTCTTGCTGA	ATTGTAAGAA	7800
AAAAGATTTA	AAAGGGGGAG	TGCCTCTGTT	TTTTCAGGAT	TGACTGCCTA	TCCGGATTAA	7860
AGAAGAAACA	GAGGAATACT	ATGAGCTTCT	TCCTGCTCTT	ATAACTGAAA	GAAGCGGAAG	7920
AATAGGTATG	TCTGATCTGA	TAGCCAGCAT	TGTGAAAGAC	AAGATTCTAG	GATACTAGCA	7980
TTAGCTTCCT	AGCCAAGCAG	ACTAGTATGA	TAAGGAGAGA	TGAGAATGAA	TTGACTTTCT	8040
GAATTTCTCA	GTCTTATCAT	ATATAGCACA	ATGAGATTTT	GCTTGAGTCT	GCTTGTAAT	8100
AAACGAAAAG	AAAGATAAGA	AATAATGAAA	ATTGGTCAAC	GAATTATGCG	CTTTGGCATA	8160
AAAAATTAAG	TATCGGAGTT	GTATCTGTTG	TAGTCGGCTT	TGATTTCTAG	CTCCAGCTGG	8220

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AATTTTCAGCC	AATGAAGTAA	AGCAAGATGT	AACATCTGAA	GTGGTAATAG	GTGTGCTAGA	8280
TTCTAAGGAG	GAATTGAAAG	AGTCAGAAAA	TGATGCTCCA	AAACTAGAAA	CTCCTCTTAG	8340
AGAGGAGCCA	AGACTAGCTC	CTCAAACGCT	TCCGGAAGCA	AGTGAAGTTC	TTGAAAACAA	8400
AAGGGAAGAG	TCAAAAGTAG	AGATAACATA	ACCAGCTCAA	GCGGATGATA	TCCGCAAGGT	8460
TGTTGGGGAA	TTAGCCAAGG	ATATAAGTAT	TACTAAGTTG	TATATGACAG	GTCATTCTCT	8520
TGGATGTTAC	CTAGCTCAGA	TTGCAGCGGT	TGAAGCTTAC	CAAAAATATC	CTGATTTTTA	8580
TAACCATGTA	TTGAGGAAAG	TGACAACTTT	CAGTGCTCCT	AAAGTGATTA	CTTCCAGAAC	8640
TGTTTGGAAT	GCTAAGAATG	GTTTCTGGGA	TGTTGGTTTG	GAAAGTCGTA	AATTAGCTGT	8700
TAGTGGAAAA	ATTAAGCATT	ATGTGGTTGA	TAATGACAAT	GTTGTGACTC	CCTTGATTCA	8760
TAATAATCGT	GATATTGTTA	CATTTACAGG	TAATTCACGC	TTTAAACACC	GTTCTCGTGG	8820
CTATTTTGAA	AGTCCAATGA	ATGATATTCC	TAACTTTAAT	ATTGGTAAAC	AAGCTACCTT	8880
GGATAAACAT	GGTTATCGTG	ATCCGAAATT	GGATAAAGTG	CGATTCTTTA	AGAAACAGGC	8940
TCTGCCTCGA	TCTTCTAGTC	AACCAAGCGC	TGAACCAATG	GAAAATATTG	CCTCAGGAAA	9000
ACAGGTTACT	CAAAGTTCGA	CAGCTTTCGG	AGGAGATGCT	AGAAGAGCTG	TGGATGGCAA	9060
AGTCGATGGT	AACTATGGTC	ACAATTCTGT	CACTCATACA	AACTTCCAAT	CTAAGCCTTG	9120
GTGGCAAGTA	GATTTGGCTA	AAGAAGAAAC	CATTGCGCAA	ATCAATATTT	ACAACCGAAC	9180
AGACACTGCC	CAGGATAGAT	TGGCAAACCT	TGATGTCATT	CTTTTAGACA	GTTCTGGTAA	9240
AGAAATTGAG	TGAAAACGTA	TAACATCTCC	TAAAGATGTG	TCAGCACAAA	TTACGATTAA	9300
CCATAAAAAA	GCGCGCTATG	TTCGGATTGA	GCTAGAAGGC	TATAATGCCC	TCAGTCTTGC	9360
AGAAGTTGAA	GTTTTCTGCT	TTATAGCTAC	GAATGCTGAA	ACGGCGACAC	AAGTTTCTAA	9420
GCCAGTTCAA	CCAATCAGTC	AGACTCCTGT	GAAGGATAAA	ACATTGACAA	TTCAACACAG	9480
TGGAGCTTAC	ATTGCCCCGT	ACTCCATAAC	TTGGGAAGAA	GTTCCAGTAG	ATAAAGATGG	9540
AAACCAAGTT	GTTCTGTAGTC	ATTCTTGGGA	AGGAAGCGGT	CGCAACCAGA	CTGCAGGTTT	9600
TGTCCTCAAC	CTCCCAATCA	AAGAAAATAT	GAGAAATCTG	CGAGTTAAGA	TTGAGAAAAA	9660
GACGGGCCTA	CTATGGAATA	GATGGCAAAC	AATCTATGAA	AACAGACCAA	TTTTAGCTCA	9720
ACCCACCGT	AAAATTACCC	ATTGGGGTAC	GACATTGAAT	TCCAAGGTGA	GTGACGATGA	9780
TGTCTTGTA	TCTGATGGTA	GAATGACAGT	TAGTTTGTCT	AGTTTATAAG	AAAGTACTAC	9840
CTGAGCTTGA	ATAGGACTCA	GGTAGCTCTC	TATGAAAGAA	CAAAATTAAT	ACTCAATGAA	9900
AATCAAAGAG	CAAACTAAGA	AACTAGCCGC	AGGTTGCTCA	AAGCACTGCT	TTGAGGTTGT	9960

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AGATAAGACT	GACGAAGTCA	GTCACATATA	TAATCCAAGG	CGACGTTGAC	GTGGTTTGAA	10020
GAGATTTTCG	AAGAGTATAA	ACAGAAAGGT	AGAGCGCGTG	TTCTAATTTG	AACACGAGTA	10080
GAAAACTTTT	CTAAAAACAA	AAACGAAAGG	ATGGGTAAAC	TGTATTCGCT	GAACGAATA	10140
CGGGCGACTC	TCCTCTAAAT	CAAAATTAAG	AAAGGAATTG	ACCCACCCCT	AAAAGTAGTG	10200
GGAAAAAGAT	AGTTGATCTA	GCGAGCATCG	CTCACTGCGC	CCAACTCCTA	TTTTCCCTTC	10260
GCTTTTTGAT	GGGTTTGGTA	TCTTTCTCAA	TATAAAATAT	AAAATAAAGA	AAGGTAGAGC	10320
GTGTGTTTTG	ATTTGAACAC	GAGCGGAAAA	CTCGGAAAAT	AGATAATCTG	ACTGAAAAAT	10380
CAGGATTTCT	CGTCAGGTTT	CTAATTTTCA	GTCGTTTTCT	TCTCGCTCTT	TGTATCATAA	10440
ATTATGTCTA	TCCATATTGC	TGCTCAGCAG	GGTGAAATTG	CTGATAAAAT	TCTTCTTCCT	10500
GGGGATCCTC	TTCGTGCTAA	GTTTATTGCG	GAGAATTTCC	TTGATGATGC	TGTTTGTTTT	10560
AACGAAGTGC	GTAACATGTT	TGGTTACACT	GGTACTTACA	AGGGTCACTG	TGTATCTGTC	10620
ATGGGAACTG	GGATGGGAAT	GCCATCTATT	TCGATTTATG	CGCGTGAGTT	AATCGTAGAC	10680
TACGGTGTGA	AGAAATTGAT	TCGTGTGGGA	ACTGCAGGTT	CTTTGAATGA	AGAGGTTTCT	10740
GTTCGTGAAT	TAGTTTTGGC	GCAGGCGGCT	GCAACCAACT	CAAACATCGT	TCGTAATGAC	10800
TGGCCACAGT	ACGATTTTCC	ACAAATTGCT	AGCTTTGATT	TGCTTGATAA	AGCCTACCAT	10860
ATCGCCAAAA	AACTTGGTAT	GACTACTCAC	GTTGGGAACG	TTTTGTCTATC	TGATGTCTTT	10920
TACTCAAAAT	ACTTTGAAAA	GAATATCGAG	CTTGGTAAAT	GGGGAGTCAA	GGCTGTGGAA	10980
ATGGAAGCAG	CAGCTCTTTA	CTATCTTGCT	GCCCAATACC	ATGTTGATGC	GCTAGCTATC	11040
ATGACCATCT	CTGATAGCTT	GGTCAATCCA	GACGAAGACA	CAACTGCAGA	AGAACGTCAA	11100
AATACCTTCA	CTGATATGAT	GAAGGTTGGT	TTGGAAACCT	TGATTGCAGA	ATAATTATAG	11160
CCAAAAAGGG	GCTCTTTGTC	AACTGTAGTG	GGTTGAAAAA	AAGCTAAGCT	TGAGAAAAGGA	11220
CAAATTTTCG	CCTTTCTTTT	TTGATATTCA	GGGCGATAAA	AATCCGTTTT	TTGAAGTTTT	11280
CAAAGTTCCG	AAAACCAAAG	GCATTGCGCT	TGATAAGTTT	GATGAGATTA	TTGGTCGCTT	11340
CCAGTTTGGC	ATTAGAATAG	TGTAGTTGAA	GGGCGTTGAC	GATTTTCTCT	TTGTTCTTTA	11400
GAAAGGTTTT	AAAGACAGTC	TGAAAAAGAG	GATGAACCTG	CTTCAGATTG	TCCTCAATGA	11460
GTCCGAAAAA	TTTCTCAGGG	TCTTTGTTCT	GAAAGTGAAA	AAGTAAGAGT	TGATAGATCT	11520
GATAGTGGTG	TTTCAAGTCT	TCTGAATAGC	TTAAAATCTT	GTCAAGAATT	TCTTTATTTG	11580
TTAAGTGCAT	GCGAAAAAGTA	GGGCGATAAA	AACGTTTATC	GCTsArTTTA	CGACTATCCT	11640
GTTGGATGAG	TTTCCAGTAA	CGCTTGATAG	CCTTGATATC	ATGAGATTTT	CGTTCAAACCT	11700
GATTCATAAT	TTGAACACGA	AAACGACTCA	TGGCACGGCT	GAGATGTTGG	ATAATATGGA	11760

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AACGATCTAG	AACGATTTTA	GCACACGGAA	AAAGCTGTTT	AGCCAAGTCA	TAGTAAGGAC	11820
TAAACATATC	CATCGTAATG	ATTTTCACTT	GACAACGAAC	GGCTCTATCG	TAGCGAAGAA	11880
AGTGATTTTCG	GATGACAGCT	TGTGTTCTGC	CTTCAAGAAC	AGTGATAATA	TTAAGATTAT	11940
CAAATCTTG	CGCAATGAAA	CTCATCTTTC	CCTTAGTGAA	GGCATACTCA	TCCCAAGACA	12000
TAATCTTTGG	AAGCCGAGAA	AAATCATGCT	CAAAGTGAAA	GTCATTGAGC	TTGCGAATGA	12060
CAGTTGAAGT	TGAAATGGCC	AGCTGATGGG	CAATATCAGT	CATAGAAATT	TTTTCAATTA	12120
ACTTTTGAGC	AATTTTTTGG	TTGATGATAC	GAGGGATTTG	GTGATTTTTC	TTTACCAGGG	12180
GAGTCTCAGC	AACCATCATT	TTTGAAsAGT	GATAGCACTT	GAAACGGCGT	TTTCTAAGGA	12240
GAATTCTAGA	AGGCATACCA	GTTGTTTCGA	GGTAAGGGAT	CTTAGACGGT	TTTTGAAAGT	12300
CATrTTTCTT	CATTAGACTT	CCACAATCAG	GGCAAGATGG	AGCCTCATAA	TCCAGCTTAG	12360
CGATAATTTTC	TTTGTGGGTA	TCCATATTGA	TGATATCTAG	AATCTTGATG	TTTGGGTCTT	12420
TAATATCGAG	CAGTTTTGTG	ATAAAATGTA	ATTGTTCCAT	ATGATTCTTT	CTAATGAGTT	12480
GTTTTGTCGC	TTTTCATTAT	AGGTCATATG	GGACTTTTTT	TCTACACAAA	AATAGGCTCC	12540
ATAATATCTA	TAGTGGATTT	ACCCACTACA	AATATTATAG	AGCCCCAAAA	GGAAGCCCTT	12600
TATGAATTGT	AGGACTTCCT	TTTCTTATCC	AGAAATTGAT	CTAGCTCTCT	CTGATTTCGA	12660
AGAATAGTGA	CTTTATGTGA	ATATTCTTGG	CAAAGTTTTT	GGTAATTTTC	TTTTTGAGTT	12720
TTGCGGACGC	CCATCCCAAA	GAATCCATCT	GATAAACTCC	CACTCAAAGC	G TTCAGGGCA	12780
ATCTACCGCC	ATACTTTCTC	TGACTTTTCC	ACGGTATTTA	AGATAACGCT	TAAAGGCTCT	12840
AAAGAGACAG	GTCAATGGCG	AAAAATTGAG	AAAGATGATT	TGGTCAGCTT	CTTGCAATCG	12900
TTCTTGGTAG	TAGCACCAAG	AATAATTACC	ATCGATGACC	CAAGCTTTAT	GCTTGGTGAG	12960
AAAGTTTTTT	ATCTCGGTTA	ACATCCATTC	GCAGTCACTG	TCTTGCCAAC	CAGGTTGAAA	13020
TTGGAGTGTG	TCCATGTGCA	GTTTTGGAAT	GGAGTAGTAG	TTAGATAACT	TTTCTGCTAT	13080
AGTTGACTTA	CCAGAACCAG	AATATCCGAT	AATTGCGATT	TTCATTTTCT	ACCTTTTCCT	13140
ATTTGGAGAC	AAAAAAACAG	CCTCTATGGA	CTGTTTCTTA	TTTAACAAGT	TTAGCTGAAA	13200
GACGAGCTTT	ATCGCGGCTT	GCTTTGTTTT	TGTGAATCAA	ACCTTTAGTT	TCTGCTTTAT	13260
CGATAGCTGA	GCTAGCAGCA	CGGAAAAGTT	CTTCAGATGG	GTTTGCTTCG	AAAGCTTTTA	13320
TAGCAGTACG	CATAGCTGAT	TTTTGAGCTG	AGTTCTTTTC	GATTCGTCTA	ACGTTCAATT	13380
CAGCGCGTTT	GATAGCTGAT	TTAATGTTTG	CCAATGGTCT	TACCTCCATA	TTTACTAACT	13440

(2) INFORMATION FOR SEQ ID NO: 129:



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- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 8512 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 129:

CCTTTTTTCA	AAAAC TAGAT	ACTAGTCTAT	CAAAAGTAGG	AAAGGGTTTC	AAGAAAATTG	60
ATTGGAAATT	TTTTGAAAAT	CATAGAACTA	TTAGCTAATC	CCTAGTATTG	AAAAGACTGG	120
ATAGCTTCTT	TCAGGTCATC	TTGTAAACTA	TTTCTCTGGT	CAAGTTGGAC	ATAGACTTCC	180
ACCAGACAGG	ATCTAAAGTT	GGAAAATTTG	TAAAAATCCT	CCCTTTCTTC	TATCGGAAAA	240
TCAACAGTTT	TTATCCAAGA	AGCTACTTGT	TCTTGCTCCA	ACTTCCCTTG	TAAAATAGGT	300
TCATAGATCA	CTCTTGCTAA	ACGCCAATCC	TCATCATCTG	TAAAGCGAAT	CGACATTCTT	360
TTAAATAGTT	GGCCAAGTAT	ATCAAATACT	TCATGAACTC	TGTTTTTAGG	AAAGTCTGGA	420
TGACAAACCA	CCTCTGTCAG	TAAATCGGCT	CCATGTGCAA	AAGCGTGAAC	CCAACCATAC	480
TGACTTGAGA	AACCCCTTGT	ATCCTTTTCT	TTTGAAAGAT	AGTGCAAGCC	TTGATTTAAA	540
AGGACATTAC	GAATTTCTGG	AGAAGGATTT	CCCAAATGAT	CAAACAACCA	CTGGATTTCT	600
TCCTGGTTAT	AATTTGGTTT	TTCTTCTGCT	ATTTTTCTTA	GTAAATCTTG	ATACATGGTC	660
AATACCTCTA	CATTTCTAGC	AACTGTTCAA	AAAGGCAGTC	TTAAATGACT	CAATATTGAA	720
TTCTCAATTA	AATACAATCT	GATATAAAAT	GACGTAAATA	ACTATCAATA	CCAGTTCTAC	780
AGTAAGTTCA	AATTTAACAT	CACGACCTTC	AACGACATTT	TTGAAAATAG	CTACAACTAA	840
GACAAATAGA	ATGACGCTTA	ACAAGCCCAT	AAACATCATT	CTAAAAAATT	TTTCTATTCC	900
CCTACTCTCC	CAACTCAGCA	CTATAGGAGA	TAATCTGGTC	AACTGTGTCA	GACAAGAATT	960
GGATGGTATC	ACGGAGTGGT	TTGTCTGTTG	AAATATCAGC	ACCGATAATC	ATGGCTGACT	1020
CAAGTGGTGT	CTTGCTACCA	CCTGATTTGA	GGAGATTGAG	CCAGTCTTCA	GCTCCAGTTT	1080
CAGAATGTTT	TAGATGAAGG	TAACCAGCAG	TCGAGATAAC	TAGTCCTGCT	GAGTAAGTGT	1140
AACTATACAA	GCCCATATAG	TAGTGAGCTT	GGCGCATCCA	AGTCAGAGTT	GCATCATCGT	1200
CAATTTCAAT	AGCATCTCCC	CAGAAATCCG	TCAAACTTC	CTTCATAATG	CTGTTGAGCT	1260
TGCTTGCTCC	AAAGGTCTCC	CCTTCTTCAA	TCAATGTATA	CACCTTACGC	TGGAAGGCGG	1320
CTTCCAAGAG	GTGGGTGATA	AAGTTATGGA	AGTAGGTGTC	TGTCAAGCGA	TGAGCCAGAG	1380
CGAAGCGTTT	TTGACGTGGG	TCATTAGACT	GGTTCTCCAA	GTAATCACTG	AGTAGCAATT	1440
CATTGAAGGT	TGACGGTGCT	TCAACATAGT	AGGTCGACAT	ATGGGCATTG	AAGTAACTTT	1500

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GATGATTGTC	TGAAAAGATG	AATTGACCAG	AATGCCCGAT	TTCATGAATC	AAGGTATAGA	1560
CATCGCTCAA	ACGGCCTGTC	CAGCTCATGA	GTACATAAGG	GTGTACGCGA	TATGGGTCCG	1620
CCGCATAACC	ACCGGAATCC	TTGCCACTGT	TAGCAGCAAA	GTCCACCCAG	CGCTCTTCTT	1680
GGTAACGAGC	AACTTCCTGA	CAATATTCTT	GCCCCAAAGG	TTCTACCGAC	TTCATGACCA	1740
AATCATAGGC	ATCGTCAATA	GTCACTTCAG	GATTCAGGGC	GCTGTCCAAG	TCCAATTTCC	1800
AGTCTGCAAA	GGTCATCTTT	TCAAGACCAT	TTACCTTGGC	AACATGCTTG	AGGTATCTCT	1860
GAGCGACTGG	TGCAAAGTCC	TTCATGATGA	GGTCAATCTG	GCGGTCAAAC	ATGACACGGT	1920
CCACTTCTTG	TTCAGCTAGA	AGATAGTCAA	AGACAGAGTC	GTATCCCTTC	ATATCAGCCA	1980
AGAGTTTTTC	AGACTTGACC	TGAGCCAGAT	AGGCTGCTGC	AGCCGTATTT	TGGTGCTTAC	2040
GAAGTCCCTC	TGAGAAGGAA	CGGAAGGATT	TCTCACGAAC	CTCAGCATCC	TCATGGTTTT	2100
GGTAGAAATT	CTCATAGGTC	ACAAAGCTGT	TTTTGTAGGT	CTTGCCATGG	GCTTCAAAGT	2160
CAGCCATTTC	AAAATCCCCA	GCTCGCATCT	TAGTATAAAT	GTCCTGCGGA	CTGTAGAAAA	2220
CTTCACCGAG	ATTTGTCAAG	GCCTTCTCCA	CATCTGCCCC	TAAGTAGTGG	GCTTTTTTGA	2280
TTTGTAGCCTG	ACGAATGGCA	GCTGTAAAT	GTGGCAATTT	ACCCAAACGG	TCCAAGACTT	2340
CCTCATCTGC	TGCCACCAAG	GCATCGTCAA	AGAAGGTCAA	GGCTACGCTG	GCATCTGTTT	2400
CAAATTCAT	CCCAGCTTGG	GCAATATTGG	CAAATTCGTC	ATTGCTATAG	TCCGTCGTCT	2460
GAGGCATAAA	ACCATAGTTG	CCAATATGGC	TCATCTGAAT	GATAGCTGT	TCCAATTCCG	2520
CAAAGGCCTT	CTCGAAATCC	TCAAAAGTGT	GAAGATTGCC	CTTGTAATCA	CGGCTAAACT	2580
GGTTGATGTC	TTGCGGAGCT	TTCTCGATTG	CACGCAAGAA	ATCCTCACGG	TCTTGGTATA	2640
GGGCTGTAA	GTCCCAGAGT	TCCTTCTCTG	GAAATTCTGA	ACGGTGTTTT	TGTTCCATTT	2700
TCTTCCTCTT	ATTTCTCTAA	TTCTACTAAA	ACACTAAGGG	CTGATAAAGC	GTAAAGCGGT	2760
GCTGTTTCTG	CTCGCAAAAT	ACGAGGACCT	AGGCCTGCCA	AAACGGCTCC	TTTAGCTTCA	2820
AAACTTTTCGA	TTTCTGCAGG	TGAGAGACCG	CCTTCTGGAC	CAAAGATAAA	GAGCAGTTTG	2880
GCTCCTGTTT	CAAGACCAGT	GACTGCTTGC	AGAAGCGCAG	CGGCTTCTCC	TTCTTTAGCT	2940
GATTCTTCAT	AGGCTACTAT	GATAGAGTCA	AACTGGTCCA	GCTGAGCTAG	AAAATCTGCT	3000
TTTTTCTCGA	AAAGTTTAAT	ACTTGGTACA	ATATTACGCT	TGCTTTGCTC	GGCTGCTCCA	3060
AGGGCAATTT	TTTCTAGTTT	TTCAACTTTT	TTACCCAATT	TCTTGCCATC	CCACTTGGCA	3120
ACTGACCAGT	CTGCAGGAAA	GGCCCAGATT	TGGCTAGCCC	CCAGTTCGGT	TACTTTTTGA	3180
GCGATGAACT	CCAGCTTGTC	TCCCTTGGGA	AATCCAGATG	CGATGGTCAC	TTGGACTGGT	3240

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AGTTCCACAT	TGTCATTTAA	TTCTTGGACC	AACTCAAAC	GACGATTTTC	CATATCCAGC	3300
ACGCGCGCCA	AGCGCTTGAT	GCCATCATCA	AAGACTAAGG	TAACCTCATC	CTCTTCTTTC	3360
AAGCGCATAA	CCTGAAACAT	ATGCTTACTG	GTTTCCTTGT	CCTCGATAGT	GACAGGAGAG	3420
ATAGCACTGC	CTTTTACAAA	ATACTGCTGC	ATGCTAGCCT	CCAATCACAC	CAGAGATATC	3480
CTTGGTTTTTC	TTAAAGACAC	AGGTATTCCA	TTCCCCTTGA	ACCATGTGAG	TTTCGAGGAA	3540
AAATCCAGCT	GACTCAGCCG	ACTGGCGCAC	CATGTCCAAC	TTGTCCTTGA	TAATGCCACT	3600
CATGATCAGG	TAGCCTTCAT	CCTTTACCAA	GCGATAAGCA	TCGTCTATTA	GATGAATGAG	3660
GATATCCGCC	AAGATATTAG	CCACAATCAC	ATCTGCCTCA	ATTTCCACAC	CCTTAAGCAA	3720
ATCTCCAGCC	GCTACATGGA	TATTTTCCAT	GCCAGGGTTG	AGCTCAATAT	TTTCCTGAGC	3780
CACACGAACC	GCCACATCAT	CCAGGTCATA	GGCGAAAATT	TCTTTAGCCC	CCAGAAGCGA	3840
GCTGGCAATA	GAGAGAACCC	CTGAACCAGT	CCCCACATCT	AGCACCGTTT	CGCCACCACG	3900
AAGAACCTGT	TCCAAGGCAA	AAAGGCTCAT	CTTGGTAGTT	GGGTGGGTTT	CAGTACCAAA	3960
AGCCATGCCA	GGATCCAGCT	TGATAATCAT	TTCCCCGCA	GTCGCCTCAT	AGTCTGTCCA	4020
AGAGGGAACG	ATGGTCAAAT	CATGAGTGAT	ACGAGCAGGT	TCATAGTATT	TCTTCCAGTT	4080
GTCTGCCCAG	TCTTCCTCAG	CCAAGGCAGT	CGTACCTATT	TTTAACTCTC	CCAAATCCAT	4140
AAAATCTGTC	AATTCTGCTA	GACGAGCCTG	CAAATCCGCC	TCAACCACTG	TCACATCCAC	4200
CGTGTCAGGG	TAGTAGGCTG	TCACTACGAT	TTCTTCTTGC	TGCTCCACCT	CTGGGAAAAT	4260
CTCTCCAAAG	CGGTCCACAT	TTCCCACATA	GTCCATACTG	TCTTCGATTG	CGACTCCTTG	4320
CGCTCCCAGC	TCAATCAAGA	GATTGGAAAC	CAACTCCTCT	CCCTCACGCT	TCACTGTAAC	4380
TTTTAACTCT	TGCCATGTTT	CCATTATTAA	TACCAAGCCC	GTAAAACACA	AAACCAAAT	4440
AGGAAATTCT	CTGAAGACGC	TTGTGTCTAA	GAGAAGTTTA	TCTTTTGGC	ACAGTGTTTA	4500
GGGCGGGTTC	AGTTTAGAAA	TGTAAGTAA	CCATCCTTTC	TAATCACTTA	CTTTTAAATA	4560
ATCTTTTAAT	CTCTCTTGCA	ACTGAGGCAC	AACTTGACTG	GAAC TAAGAA	ATTCCTCAAC	4620
ATTCATCAGC	TGATAGCCCT	GTCCTTCATC	TCCGAAGATG	ATATTGTCAA	ATTGTTCTTG	4680
TCTTAGCTGA	CCAACCATAA	AGACCGATTT	CTTGCCTTTA	AAAATTACGC	TAGGATAAAT	4740
CTTGCTCCAA	AGCAGACAGT	CTTCATCTAA	ATGAATTCCC	AGTTCCTCAT	AAACTTCACG	4800
CCGAGCGCAT	TCAAAAGGGC	TTTCGTCCCC	TTACCGGCCA	CCACCTGGCA	GTTCCCACAT	4860
ATTGGCCCAG	GGAATACTTG	CCTTATCATC	GCGTAAGATA	GTCAAAAGCT	TATCCCCACA	4920
AAACAAAGCA	ATCTTGCAAC	CTGTGAAATC	AGAAATTTCT	AGTTCCATCT	TCAGTTCCTT	4980
CTAACATTTT	CTTTTCCAGC	TCGGCTAACC	AGTTTTTATA	ATATCTTTTC	TCATCCCTCA	5040

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ACATTGACT	ACTATCCATT	TTCTGTCTAG	CAATCTTGAG	AGCCTTACGA	GTTGATCTA	5100
CATCTTTCTT	CACCTTTAAT	TGATACCAGG	CTTGTATCAC	TTGAAGATTG	GACAGTTTGA	5160
GAGACAGAAA	CGATTTGACC	TGTCGAATAC	TAGCATATTG	CTCCGCTTGC	TCAAAATCTC	5220
CTTCCAACAA	GGCGATATGA	AGCAGGGATA	GTTGGGCAAC	TGTCTGCATC	ATCGGAGTAG	5280
TTGTCTCTC	AAGTAATGCT	TGAAACTGCT	GTTTAGCTAC	TTCTTCCTTC	CCTTCCAAAA	5340
TGGAAACTTC	ACCTTGCATA	CCTAATACAC	CATCCGCAAA	ACTCCCTCGT	GCATCCTCAG	5400
GAAGTCTTG	AACAAAGTCT	TTCAAATCAT	ATTCTTGAGG	AGCTAGCAAG	GTCTGGGCAG	5460
AATGTCTCAA	TACCAGGTAG	GCGTATTTGG	TATTTTCAGG	GTGTTGTAGT	AATTCCCAAA	5520
TTTTTGCTCC	ATCGGTGATG	TCGACTGGCA	AAATGTTATT	TAGGAAGAAA	GATAAATTAA	5580
GAAAAATCCA	AGTCCCTGCA	AAATACCAGC	TTCTTGTCAA	AAATCCAAAC	AATATCGCCA	5640
ATAATATCAA	GCCGAGATGA	ACCATCAAGC	CTCCTGAAAG	CATCAGGATG	ATTCTTTGAT	5700
CGCTTTCATC	CTCTTTTAAA	CCAATGTATT	GAGCACCAAC	ATTTTTCAGA	ATGGCTGTTC	5760
TACTAAGATG	AAACCTGCCT	GACTTTTTGG	TCAAAATAAA	ATGTCCTAAT	CCAAAAGCCA	5820
CCAGCCGATA	GCCTGTCAAG	TAGCCACAAA	AAGCATGACC	CAGCTCATGA	AGAATAAAGA	5880
TTAAATACAT	GCTTAGAAGA	GCGAAGGCAT	AACCAAAAGT	AAAGGCTAAA	ACTGCGGAAT	5940
ACCCCAACTC	TGCAAATGCG	ATTGTTCCAC	AAGCAAAAGC	TAGCATAATA	AAGACAACAG	6000
CTAGCACATA	AACCAAATAA	GTCCCAATTT	TCTTCATAAC	ACCTCCAACC	AACTCCTAGT	6060
ATCTTGATA	AGGATAAAAT	TCTCCCTTTT	CCAAGCCAAT	TTTTCTTCT	TCAAAGACTT	6120
CTTGGTTCCA	TTCCATGACA	AATTCCTCTG	CTTCTGGGTC	TTCCAAAAAG	TCCATGAGGA	6180
CATCTAGCCC	AACCTCAGCA	GTATCTTTAA	GGAAAAGCGC	AAAATAAGCT	AAAAATTCAC	6240
GGGAAAATCC	TTTTTTAGGC	AGGTAAGGAA	TAACAGTCAA	ATAGTCTTCC	TCATTGACTG	6300
TTGACTTGGC	AGGATTGTAG	AAAAGGACCG	CTTCCTCAAA	AAGAATGTCA	TCTGATGAAA	6360
CCTCTCCGTC	TTCATCCACC	ATCTCCACAC	CGCAGCATTT	TGCGCTTCCA	ATAGAAAAC	6420
CACTTCTACC	GCATGGTTGC	GTTTGTCCCA	GCTAATCTCA	AAGTCAAAGG	GAAAGTTCTT	6480
GTCCAACTCT	TCCTCTAAAA	TATCTAAAAA	TCCGTATGTT	GCCATTTTGT	CCTCTTTCTA	6540
TGCGACTCTT	TAATCGCCCC	GATTGCTCGG	AAATATGCTA	AAATAGATAC	TACCATCTTA	6600
CCACAAAATT	ATTTTATGTC	CTAATTATAC	CATATTACCT	CATTTAAACC	CTTGGTATCA	6660
GTGATTTTCT	TAAAAGTCTG	ATTTCTTCAT	TTCTCATAAA	AATCAATATA	AAAAGCCCTC	6720
GAAAGGGCTA	ATAAATCTAT	AAAATCAATA	GGCGAGTAAC	TAGCACAAGT	GGACGTGCTT	6780



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TTTTATTGAC	TATTACCACG	ATACCACGCT	TAATCTTAGG	CTTGAACTTT	CTTATCTGCA	6840
ATAGCGTCTG	TCAAAGTCTG	AGAAAAGTTA	AGCCCCATTT	CTCGTCCCAA	CTTATCTGCC	6900
CATTTTGGTA	TGGTCAAAGT	CTTTTAAATG	GGTTCCTGAC	TTCTAGGTA	TTCTGATACA	6960
TCAACAGATA	CCATAGAAAT	AAAAGATTTA	TCAAGGTCAT	AGGTTGACAC	GAAATCTTCA	7020
TCATCTTTAA	AAGGATCATT	ATCAATTAAA	GACAAGCTAT	TGATATCTGA	TGGCTGAGGT	7080
AACTCTCCAT	CACTCTCTAT	CAAATCTGCA	ACAGTTATCC	CTAGCCACTC	CGACCCCAT	7140
GCCAAAGCCT	CAGAAATCCC	CTCTCCTTGT	GTAGCTGAGT	ATTCAAAATC	TGGGAAATGG	7200
ACAAAATAAG	TCGCTTCTGT	TCCGTCTGTG	TCGTCATAAT	AAAATAAAGC	TGGATACGTA	7260
ACTAACATTT	CACTACCTCC	ATATCAAAAA	GCAGGGACTG	AATTTTACAA	CCCAGCTTGC	7320
TTTCTTATCC	CTCTTTCAGT	GTACTTATTC	AGCTCACCAT	GAAGGATTGT	GATAGGTCTT	7380
TCCCCTTGCT	TTTCCATTTT	AATATGGGAG	CCTTTACCGC	CTCTAGTCTT	TATCCAACCA	7440
TGGGCCGTAA	GGAGTTTAAC	CATCTCTTTT	TGTGTCATAG	GCATAGCGCT	TTTACCTCCT	7500
GACAACACCA	TTATAACACG	TGTTACACGT	ATTGTAAAGG	AGTGATACTT	ATTATTCTAT	7560
TATACATAAA	AGCCCCTAGA	TGTGGTTCTA	AGGGAAGCCA	ATTTATTCAT	ACCTATTTTT	7620
CTAATGAGTA	GTAAAAACTG	CTTCTTTATC	GAGCAATTCA	TCATCTGTAT	AGTCAATTGT	7680
AAAAGTATCT	CGATCTAAGA	CAGATTGAGG	CGGAGTTGAA	TGAATCATAG	GAACACTGCG	7740
TACTCTATAT	TTTTTATCTC	CAATTTTTTAC	AAACTGATAC	TCTTCGAAAA	TCAAATTCAA	7800
ACCACGTCAA	CGTCGCCTTA	CCGTACTCAA	GTACAGcCTG	CGGCTAGTTT	CCTAGTTTGC	7860
TCTTTGATTT	TCATTGAGTA	TGATTAAGTC	TCAAGTCTTC	GAAATCAGGA	TTTTCAACAG	7920
TTATTACAAG	GAGGCGATTT	ACTACTTCAA	AAACATCAAT	TATTCTATTT	TTCATATTTT	7980
TTCAACCCAT	TATTAGAATG	AACTTCTTGG	TAAGCAAAAT	CAAGTTTAGA	TTAATGTTT	8040
TCGTACAAAT	CTAAAATCTC	TTTTGGAGTA	TCTTCCCGGA	AGAAAAGTTT	TCTTTTCCCT	8100
GAAATAACTT	GATCACTAAG	AATCCAATGA	CGAATTTGTT	TTGTAAAAAT	CAAAATTTCC	8160
TGACTTGGTA	GTTCCATCAT	TTCCATTGCT	TATCACCTCT	CTTTTCATTA	TAGTTCATAC	8220
AATGACATTC	AGCAATATTA	TTTCTCAAGT	CAGCACTTCC	ACTTCTTTAG	GCTCAACTAT	8280
CCTATTTTGA	GCTTTAAGGA	AAATCAAATC	TCTCATGCTG	ATACCTCTCC	TCATTAAATT	8340
AAATAGTAAA	AAAGATTCTA	TCTCACTCCC	TGATTATTAC	AAAACCATTG	AAATATCACA	8400
ACTAATAGGC	TAGAATGGAC	ATAGTAAGAT	ATAGTAGATG	AGTCATTCTA	CTCAAATCCA	8460
CGTTAGAAAG	GACTGCTATG	CCAGACAATC	TCGCCGTTCTG	CATGCGCCcn	GG	8512

(2) INFORMATION FOR SEQ ID NO: 130:

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## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2869 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 130:

CTCGTTTCAA GGTGAGTCT CTTGCAAATC TTGTTGCGGT TCTTCCTTTT GCCAAGGCAT	60
CTCTCCCATG GTTGGTGCCa GCCATTGTTG GAATCTTGCT CTCATTGGTT CTACCAAACA	120
AGCAAGAAAG CGATGTTTTT GAAATGGAAT AATCACTTAA ATCACTTTTG TAGCCAAGTC	180
TACAGGAGTG ATTKTCTTTT TTTATCCGAT GATAAATGTG TTATAATAGG TAGCGAAAGA	240
GGTGAAGAAA TGAATCAAAC AGTAGAATAT ATCAAAGAAC TGACAGCCAT TGCGtCGCCA	300
ACAGGCTTTA CTCGTGAGAT TGCGGACTAT TTAGTCAAGA CTCTAGAAGG TTTTGGTTAC	360
CAGCCGGTTC GCACATCCAA GGGCGGTGTC AATGTAACTA TTAAAGGTCA AAATGATGAG	420
CAACATCGCT ATGTGACTGC CCATGTAGAT ACGCTTGGTG CTATTGTCCG TGCTGTCAAA	480
CCAGACGGCC GTCTCAAAAT GGACCGTATC GGTGGCTTTC CTTGGAACAT GATTGAAGGA	540
GAAAACTGTA CCATTCATGT GGCTAGCACA GGTGAAAAAG TATCAGGAAC CATCCTCATC	600
CACCAAACCT CTTGCCATGT CTATAAGGAT GCAGGAACTG CAGAACGCAC GCAAGACAAT	660
ATGGAAGTGC GTTTGGACGC CAAAGTAACT AGTGAAAAAG AAACTCGTGC TCTTGGCATT	720
GAGGTCGGTG ATTTTATCAG TTTTGACCCA CGAACTGTCTG TGACAGAGAC AGGTTTTATC	780
AAGTCTCGCC ATTTGGATGA CAAGGTCAGT GCGGCGATTT TGCTCAATCT CCTTCGCATT	840
TATAAGGAAG AGAAGATTGA ATTGCCCCGTA ACAACTCATT TTGCTTTTTT AGTCTTTGAA	900
GAAGTGGGAC ACGGTGCAAA CTCTAACATT CCTGCTCAGG TAGTAGAATA TCTGGCTGTG	960
GATATGGGAG CCATGGGAGA TGACCAGCAA ACAGACGAAT ATACAGTGTC TATCTGTGTC	1020
AAGGATGCTT CTGGACCTTA TCACTATGAC TTCCGTCAAC ATTTGGTGGC TTTGGCGAAA	1080
GAGCAAGATA TTCCATTTAA GCTGGATATC TATCCATTTT ATGGTTCGGA CGCTTCAGCG	1140
GCTATGTCTG CAGGGGCAGA AGTCAAACAC GCCCTTCTCG GTGCTGGTAT AGAGCTAGC	1200
CATTCCTATG AGCGTACCCA TATTGACTCG GTGATCGCAA CAGAACGAAT GGTCGATGCT	1260
TATCTTAAGA GCACGTTGGT GGACTAATAT GTGCCTTATT TGTCAGAGAA TTGACCTCAT	1320
CAAGAAGGAA GAAAATCCTT ACTTTGTCAA AGAGTTGGAA ACAGGCTATC TTGTGGTTGG	1380
AGACCACCAG TATTTTGAAG GCTATAGTCT CTTTCTAGCC AAGGAGCATG TCAGCGAATT	1440

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GCACCATTTG AAAAAGGAGA CAAGACTCCG TTTTCTAGAA GAAATGAGTT TAGTCCAAGA	1500
GGCAGTTGCC AAGGCCTTTG CTGCTGAGAA AATGAATATC GAACTGCTAG GAAATGGCGA	1560
TGCTCATCTT CATTGGCATC TGTTTCCACG ACGGACAGGT GATATGAATG GTCATGGTCT	1620
CAAGGGTCGT GGACCAGTCT GGTGGGTTCC CTTTGAAGAA ATGACAGCAG AAACCTGCCA	1680
AGCAAAACCG GATGAGATTA AAAGATTAGT CAAACGTTTA TCGTCAGAAG TAGATAAACT	1740
ATTAGAAATA AAGGAGTAGA AATGAAGAAA AGATACCTAG TCTTGACAGC TTTGCTAGCC	1800
TTGAGTCTAG CAGCTTGTTT ACAAGAAAAA ACAAAAAATG AAGATGGAGA AACTAAGACA	1860
GAACAGACAG CCAAAGCTGA TGGAACAGTC GGTAGTAAGT CTCAAGGAGC TGCCCAGAAG	1920
AAAGCAGAAG TGGTCAATAA AGGTGATTAC TACAGCATTC AAGGGAAATA CGATGAAATC	1980
ATCGTAGCCA ACAAACACTA TCCATTGTCT AAAGACTATA ATCCAGGGGA AAATCCAACA	2040
GCCAAGGCAG AGTTGGTCAA ACTCATCAAA GCGATGCAAG AGGCAGGTTT CCCTATTAGT	2100
GATCATTACA GTGGTTTTAG AAGTTATGAA ACTCAGACCA AGCTCTATCA AGATTATGTC	2160
AACCAAGATG GAAAGGCAGC AGCTGACCGT TACTCTGCCC GTCCTGGCTA TAGCGAACAC	2220
CAGACAGGCT TGGCCTTTGA TGTGATTGGG ACTGATGGTG ATTTGGTGAC AGAAGAAAAA	2280
GCAGCCCAAT GGCTCTTGGA TCATGCAGCT GATTATGGCT TTGTTGTCCG TTATCTCAA	2340
GGCAAGGAAA AGGAAACAGG CTATATGGCT GAAGAATGGC ACCTGCGTTA TGTAGGAAAA	2400
GAAGCTAAAG AAATTGCTGC AAGTGGTCTC AGTTTGGAAG AATACTATGG CTTTGAAGGC	2460
GGAGACTACG TCGATTAATA CTCTTCGAAA ATCTCTTCAA ACCACGTCAG CGTCGCCTTA	2520
CCTACTGACT GCGTCGGTTC TATTCACAAC CTCAAAACAG TGTTTTGAGT cGATTCGTCA	2580
GTTTTATCTG CAACCTCAA GCTGTACTTT GAGCAsT GCG GCTAGCTTCC TAGTTTGCTC	2640
TTTGATTTTC ATTGAGTACA AAAAGTAAAC TTTTCTCTTG CAATTCCAGA TAAATAGTGT	2700
ATAATGGATG GGTATGTGAA AAACATACTT GTGGGAGGTA AAAATCTCTA ATTACCGCCA	2760
AAACCACAAA GGAGGATTTA AAAATGGCTA AAAAAGTCGA AAAACTTGTA AAATTGCAAA	2820
TCCCTGCTGG TAAAGCTACA CCAGCTCCAC CGGTTGGACC TGCTCTTGG	2869

(2) INFORMATION FOR SEQ ID NO: 131:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 6186 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 131:

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CTGAATCCCT	TATAGGAGTC	CAGTAACTTT	TTAGCCTCTA	CTTTGCCTTC	ATAGGCAGCT	60
TCAACATCAT	TAAAAAAGA	ArGCACTGAA	GCAAGTTCTT	CAGTGCTCCA	CGACAAATCT	120
AGTGGGTAAC	TATACTGTTT	GTTTCATTAAC	TAATACCAGC	TCTCATCTTT	GCTTCTTTTA	180
GTTCTTGCTT	ACGATAACTA	CGAGGGAGAA	AAGCACGAAT	CTCATCTTCA	TTAAAACCGA	240
TTTGCATACG	CTTGGCATCA	ATAATAATTG	GACGACGCAA	AAGACTAGGA	TACTGCTCAA	300
TCAAATGAAG	CAATTCCGAT	ACCGAAATAC	TCTCTACATC	AATATTCAAT	TTTTGAAAAA	360
TTTTTTGAACG	AGTTGAAATG	ATGTCATCAG	TACCATTTTC	GGTCAAGGAA	AGGATGTGTT	420
GCAATTCTTT	TCTTGTTAAA	GGACTGGTCA	TAATATTGTG	TTCCACAAAG	GGAACCTATG	480
TTTTTTCTAAC	CAGGCCTTAG	CCTTACGACA	TGATGTACAG	CTCGGTGATA	GAAATAGTGT	540
AATCATGCTT	TTCTCTTCTT	ATCTATACTT	TGCTACTTCT	ATTATACAAA	AAAATAAAGC	600
GCTTGACTAG	GGATTTTTAG	AAAAAAGCC	TATTTTTTCA	AGAAAAATAG	GCTTTTTGCG	660
AACGATTGAC	ACAATTGGAT	TTGGTTAATT	CACTCTTAAC	GATGGTTTTA	AACGATATAT	720
ATTTTTATAT	ATGTAAATTA	AAAACATCTT	TCCTTTCACT	TCCTACGACT	TTTCAGATAC	780
AGATAGCCAA	AGAAGTTTTC	ATAGAGGGCA	AAAAAGAGGA	GGAAGGCATG	AAGAAAGAAG	840
GTCTCTGGCA	AAATCATAAT	AACAGGATCC	TTGGCTGGAT	CAAAAAGCCA	GGTATCATCT	900
CCCACAAAGA	GAATTTGATG	GAAAAGAGTA	AAGAATTGGT	CAAAACCAAT	CAAAACTCCC	960
CCAAGTCCAA	TCATCACAGG	TAAGACTACT	AGAGCCAGGA	GACTTTTTTCG	ATAAAGAGAC	1020
AAAAAGTCCT	TTTTCACAAT	CCTATTGACA	AAGACATAGA	AACTTGGCAG	TGTCACTAGA	1080
GCTACTAGCT	GAACCAAATG	AAAGAGATTC	TTGACCACTG	CGAAATGGTG	CAGACCAGCT	1140
GCTGACGAAC	GAAAATCAGG	CATCTGTAAG	ACCTGACTAA	AAGGATTGGT	CAGATAATTC	1200
ATCAAGATAT	GAAAATTGTA	TTGAATGGTT	TCTGGTTTTA	GATAGACTCG	ATTCGTTAAG	1260
TTTAGCCACT	GAATCTCCAT	AGGATAGAAA	ATCCAAGCCA	GATAAATGGT	CAGAAGGATG	1320
GAGAGGGAGA	GGAGAAAGAG	CATAGAGCCC	CAAAAGATCA	ATTTAGTTTT	CATCAAAATC	1380
CCACTCCGCA	AGGCTAGAAA	CCACATGTGT	CGGTGCGATT	GGCAGGCCAG	CTACTTCTTC	1440
TGCCTTAGTA	AAACCTGTCT	TCACCAAGAG	CGTTGGAATG	CCATTGTCAA	TCCCAGCCCC	1500
AATATCAGTC	AAATAATTGT	CCCCAACCAT	GATTAACCTC	TCACGTTCCA	AACCTAAGTG	1560
CTCAACCGCC	TTGTCCATAA	TGATGGCATT	TGGTTTTCCG	ATATAAACCG	GCTTCACTCG	1620
TGTCGCTACT	TCAAGCAGCG	TAATCAGTGA	GCCAGCACCT	GGCAAAAGAC	CGCGTTCCGT	1680
CGGGATGTTG	AGGTCAGGAT	TGGTTCCGAT	AAAATGGGCA	CCCTTTTGAA	TAGCAAGAGT	1740



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TGCTGTGGCA	AATTTTTCAT	AGTCGACTTG	CCAATCCAGA	CCAACCTACCA	CGTAGGCAGG	1800
TTTTTCCTTG	TCTTCCACAT	AACCAGCCGC	CTTGATGGCT	TCCTTGAGTC	CTGCTTCTCC	1860
GACGACATAG	ACGGTCTTTT	CAAGCCCCAA	ATCATTCATA	TAGTCGATGG	TTGCCAAAGT	1920
CGCTGTGTAG	ACAGTCGATA	GGGGCGTATC	GATATTAAAA	TTCTGAGCCA	ACATCTCCTT	1980
AACACTCTCT	GGAGTGCGGG	TTGTATTGTT	GGTTACAAAG	AGATAGGGAA	TGTCCCGCTT	2040
TTGCAATTCA	TGAACAAAAG	TCTCTCCAGC	AGGGATTCCG	TCTTTCCCTT	TATAAATGGT	2100
TCCGTCTAAA	TCAATTAAAT	AGCCTTTATA	TTTCATCTAT	TTCTCCCTAA	GCCTTTTTTA	2160
TTTCTTGCCA	AGTAATGATT	GCTTGGGCAT	TGATAACCCC	ATCACTTGTA	ATTTTCATGCT	2220
TGCTTTCCAG	TCCAGTCCGT	TCAACAGCCG	ATGTAATCAC	CCCACCTGGT	CGAACTTCCT	2280
TGACATACTT	GAGGTTGATT	TTCTTGGGAA	TATAGTGGGT	CAAAAAATCC	GCTCCCATGA	2340
CCTCAAAAAT	CCAGTCCAAG	TATTTACTGT	TATTGACATG	ACCATTTCATA	TCCAAGTCGT	2400
AAAAACGAAC	ATGGTAATCC	TTGCTGATCG	GTTCTTCCAA	GGACTCATA	TTCGGTCCAC	2460
GGATAAGTTT	TTTATCAAAA	TCAGACTGGT	AAGGAGCCAC	AATCTCAGGT	TCAACAACAT	2520
GGACTTTTCG	ACTGTCGCGG	TCCATGAGAA	CAAAGGTCGC	CATCATGTGG	ATGAGCTCCT	2580
GCTCCGCTTC	ATTATAAATA	GTAAAGCGAC	GGTAGCAAAA	AAGTCGATTG	TAGCTCAAGG	2640
CTTCCGTTTC	GATGGTAATT	TCTTCCGCAA	AACGAGGCAA	ACGAACCACC	TCAATATCAT	2700
ATTCTACGAT	AATCCAGACC	AGATTATATT	CTTCCAAAAT	GGCCTTATCA	CTAACTCCCA	2760
GTTCAATCGA	CTGCATCCCT	GAAACTTGCA	GTGACAGCAA	AATCACATCT	GGAAGTTTGA	2820
TATGACCGTT	CATATCAGCC	ATATCAAAAG	GAATTTTCAT	TTTCATTTGA	TAAGTTAAGC	2880
CCATGATCCT	ACTCCAAAAT	AAATCGTTCT	GCTACAGTAT	CTCCCAAAAA	GAGACCTCTC	2940
TTTGTCATGC	GAACGTGGTC	ACCCTCAATC	TGCATGAGGC	CTTGTTGAAC	CAAATCTCTG	3000
ACAATTTCTC	CATAAAGTCC	AGCAAAAGAC	TGTCCAAATT	TTTCCTCAAA	TCGCGCCATG	3060
GAAACCCCGG	ATTTCTTGCG	GAGTCCCAAG	AACATTTCTT	CTTCCATTTG	CTCCTTTTGA	3120
CTCAGGTGAT	CTTCTGTAAT	ACAAGCATTG	CCTTCCTCAA	CCGCACTGAG	ATAATGACGA	3180
ATGGGACCAT	GATTTTTTATA	GCGTACTCCA	TTGACATAAC	CAGATGCCCC	TGCACCAATA	3240
CCATAGTATT	CAGCATTGTC	CCAGTACATG	AGATTATGAC	GACTTTCAAA	ACCGGGTTTG	3300
GAGAAATTAG	AAATCTCATA	ATGCTCAAAA	CCCGCTCGCT	CCAGCTCTGC	AATGATGTAC	3360
TCAAACATCT	CCGCTTCTAG	TTCCTCCTTA	GGCAGAGGCA	ATTTCCCACG	TCGCATCCGG	3420
TTCATAAAGA	CCGTATGGTT	TTCTAAAATC	AAACTATACA	AACTCATGTG	GGGAATATCC	3480
AATCCAATGG	CTTTAGCCAC	ATTTTCCTTT	ACTTGCTCCA	TGGTCTGACC	AGGCAGAGCA	3540

TAAATCAAAT	CAATGGAGAT	ATTGTCAAAA	CCAGCCAGTT	TCAGGCGATC	GATATTTTCA	3600
TAAATATCCT	TCTCCAAATG	ACTGCGCCCA	ATCTTTTTCA	ACATCTTATC	ATCAAAGGTC	3660
TGGACACCTA	GCGAAACACG	ATTGACAGCC	GAATTTTTCA	AAACAGCTAT	CTTATCCGCA	3720
TCCAAATCGC	CTGGATTGGC	TTCAATGGTC	AACTCTTCCA	AGACAGACAA	ATCCAAGTTT	3780
TTAGTCAAGC	CATTCAGTAA	CACCTCCAGT	TGCGGAGCCG	ACAGGGCTGT	CGgTGTTCCA	3840
CCACCGATAT	AAAGGGTTGA	CAACTTTTCA	ATATCATAAG	AACGAAACTC	TTCCAGCAGA	3900
TGCTCTAAAT	AGCTGTCGAC	TGGCTGATTT	TTGATGAAGA	CCTTTGAAAA	ATCACAATAA	3960
TAACAAATCT	GGGTACAAAA	TGGGATGTGC	ACATAGGCTG	ACGTTGGTTT	TTTCTGCATA	4020
GTAATTATTA	TACCACAAAG	ACTAGATTCC	AGATAAAAAT	CACCATCCCC	AGATACATAG	4080
TCCGTCCGGA	GATGGTGATG	GTTTATTCTT	CTGTTATATC	AATCACAATC	TCTTCTGAGT	4140
CATCAAGAGC	TTCGGCTTTT	TCTTGCCATT	GCTCCTTGAG	ATTATTTAAT	TGATTTTTTG	4200
ATGCTTCTGT	CGCTTGAAAA	GCATAGGATT	TAGTTTGAGC	AAGTATACTG	TCCACAGTGA	4260
TTTCACCTGA	CTCAACCTGT	TCTTTTGTTT	TCAGAACAAA	ATCTGTAGCC	TGCTCCTTAA	4320
CTTCTGTCAG	TTTTTCACAG	ACTTGCTCCT	TGGCATACTC	CGGATCTTCT	CTCAAATCAT	4380
CTAGAAAATC	TTGAGCCTGA	CTGCAAACCT	GTTTGCCCTT	ATCACTTGTT	AAAAACAAGG	4440
CAAGAGCTGC	ACCTGAAACG	GTTCTTAAAA	GGATTGAGGA	TAATTTACCC	ATAAGGATTC	4500
TCCTTTTTTA	TTTTTTGAAA	AATTTACTTG	CAAGACGAAG	AGCTGACAGA	CTTGCAACCAG	4560
TCTTGAGTGT	TTTTGAACCA	GCTGATGAAG	CTTCTTGCT	CAAGACACGC	GCATGGTCAT	4620
TGAGGTCTGA	AACAGATAGA	GATAAATCTG	CAACAGCACT	GAAGAGTGGA	TCAATCGTAG	4680
CCACCTTGAC	ATTGATATCA	TCTGCCAAGA	CATTGACCTT	AGCCAACAAC	TCATTGGTGT	4740
GATGCAAGGT	CACATCCACA	TCTGAAGTCA	AGGTTTTAAT	CGTCTTTTCT	GTTTCATCGA	4800
TGACACGACC	AAGCTTTTGT	ACAGTAATGA	TCAGATAGAC	CAAAAAGACA	ATCAAAGCTA	4860
GGGCAACAAG	AATATATGCA	ACTTCTAACA	TTTAGTTTTT	CTCCTCTGTA	ATATAGTAAG	4920
GGGCCTTCTT	TCGATTTTGA	TAAATAACGA	TCATTATACC	GAGACCGATA	AGGACAACCTG	4980
ACAGCCATTG	GGACACTCGA	AAGCCGAAGA	ACATGAGACT	ATCTGTTTCG	ATACCTTCGA	5040
TAACCATACG	ACCGAAACCA	TACCAAATCA	AGTAAAAGGC	CGTGATATGA	CCTCGTCTGA	5100
GACTCTTCCA	TTTCCGTCTA	AAAATCAGAA	TCAAGGCAAA	GCCAAGCAGA	TTCCATAGAG	5160
ACTCATAAAG	GAAAGTCGGT	TGACGGTAGC	TCCCCTCAAT	ATACATCTGG	TCACGGATAA	5220
AGCCAGGTAG	ATAATCCAGA	TTATCCACTG	TTGCACCATA	AGCTTCTTGG	TTAAAGAAAT	5280

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TACCCCAACG	CCCCAACTT	TGAGCAATCA	TAACGCTAGG	CGCCGCAATA	TCTAGAAAAT	5340
CCCAAGTATT	GATGAGTTTA	CGGTCAGCAA	AGATATAGAG	CACAAGAGCC	CCAGTTATCA	5400
AACCACCGTA	AATGGCCAAA	CCACCATTCC	AAATGGCAAA	AATCTCTCCT	AAATTCTGAC	5460
TATAGTAATC	AAATCGGAAA	ATAACATAGT	AGAGACGAGC	TCCTAAAATA	GCCAAGGGAA	5520
AGGCTACTAA	GATAAAATCT	AAAATATCGT	CTGGTATGAT	CTTCTTTCTA	GGTGCTTCTT	5580
TCATGGTCAA	ATAAACCGCA	AGAATCAAGC	CTGTCACAAT	ACATAAGGCA	TACCAACGAA	5640
TGGCTAGGGG	TCCTAGTTGA	ATAGCAATTG	GATCAAGCAT	TTTGACCTC	ATTTGAGCG	5700
ATTAGACTTG	TCAGTCGTTT	GTCGAACAAA	CGGGTCGCAT	CAAAGCCCAT	TTCCTTGGCA	5760
CGATAATTCA	TGGCAGCTGC	CTCAATCACA	ACAGAGATAT	TACGACCTGT	TTTAACTGGA	5820
ATACGAATAC	GAGGAATGtA	CGCCAGAAAC	TTCAAGTTCC	TCTGCATTAT	TTCCAAGACG	5880
ATCAAAGGTC	TTATGCGTAT	CGTAATTTTC	CAAATAGACA	GCAAGCTGAA	CCTGTGAAGA	5940
ATCCTTGACA	GCACTCGCAC	CGTAGAGACT	CATAACATCG	ATAATACCAA	CCCCACGAAT	6000
TTCAATCAAG	TGTTTCAAAA	TTTCAGCTGG	TTCACCCCAG	AGAGTAATCT	CATCCTTGGC	6060
AAAGATATCG	ACACGGTCAT	CGGCTACCAA	ACGGTGACCA	CGTTTGACAA	GCTCAAGACC	6120
TGTCTCGCTC	TTACCAATTC	CACTATCTCC	CTGAATCAAG	ACGCCCATCC	CATAAATATC	6180
CATCAA						6186

## (2) INFORMATION FOR SEQ ID NO: 132:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9541 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 132:

GAAAATCACA	ACCCTTTTTG	CAAAATTTTT	GAGATTATTT	TCACAAACTT	GATTTTTTCAA	60
AGTATACTCA	ATAAAAATTA	AAAAAATCCA	CTACGTCAAG	GCGAGGCTAA	TGTGGTTTGA	120
AGAAATTTTC	GAAGAGCGTG	AATGAGTATC	ATCTATAGTA	AAATAAAAAA	ACTGAACAAT	180
TTGGTTGGGG	ACAGCCAAAC	CAATTTCTCA	CAATGTTTCA	GAAACAAGGG	TGTGCTATTC	240
CAATTTCAGC	CTACTATAAC	TGTCATAGAT	TGCTGAAACA	AAGTCTAGGT	AAAAGTCTTC	300
ATAATAAAAA	GACCTCCTAT	CAAGTGTTCA	AAAACTTTGA	TAGGAGGTCT	TGTTTTGTGA	360
AAATATTTAT	CAAATTTTCT	ATACAAGTGA	GCTGTTAGCC	AGGTTCTTTC	TATTCTTTCA	420
ATTTCAATGA	ATGGATTTTT	TACTAATACT	CATAACTGGG	AATTTGTCTG	TGTAAAAATA	480

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GCGAGATAGA	TGGTATTTAT	AAAACACTCA	AGACAGCTAG	ACTAATATCA	TTTAAAACAT	540
TATCTTCTTT	TGAGCGACTG	TTGGTTACCA	ACATAGCTAA	ATTTCTTGCA	TTTTCAAATT	600
GATAGGGTTC	TGATTTAGCA	TTCACAAACCA	CCAAGAGGTG	TTCTTTGCCG	TGAACTTCAT	660
AGATAAGGTA	GCCGCTATGT	TCAATCGCAG	AATGCACAAA	GACATGATGG	TAAATTTTCAT	720
CATAGCTAGA	GTAAGAAAAG	GCACCAGTTT	TTGTCTTCAA	TCGGATGACT	TGACGGATAA	780
ACTCAATACT	GTCTTGACGC	TCATTAATCA	AGTTCCAGTT	CACTTGGTTC	ACACTGTCAG	840
GAGCATTATA	GCTATTCATC	GCACGCTCTC	TATCATCATG	GGTCAACTCA	CCATTTTCAC	900
CAGTCGCAAC	CAGTTTGGA	CGACCAAATT	CTTGACCGAT	TTCCATAAAG	GCCATCCCCT	960
GCATGAGCAG	ATTCATGGCT	GTGGCAGTTT	CGACCTTGCG	CATGATTTGC	TCTGAACTTT	1020
GGTCTGGATG	AAGGGTTGCC	AATAAATCGT	GAAGATTGTA	ATTGTCATGG	GCTTCTACAT	1080
AGTTAAGCAC	CTGATTTGGA	TGTGTATAGC	TTCTTAATTC	ACGACTTCCT	AGGATTGCTT	1140
TAGCTAGAAT	TGGCTCTGTC	GCAGCACCAC	TGACAAAACC	TGACTTGATA	GCACCATAAA	1200
CTTCTCCCCC	TTTGACAGCA	TCGCGCTGAT	TGTCATTAAA	GAAACCAATA	TTTGGCATCT	1260
GGTAGGCATT	GTCCTTCTTG	GCCTTATCAT	AAGGGGCAAG	ACCTGTTCCC	ATATCCCATC	1320
CTTCTCCATA	GAGGATAATG	TTGGAGTCGA	TTTCATCCAA	GCTTTGACGA	ATCATCTGCA	1380
TGGTCTTGAC	ATCATGAATC	CCCATCAAGT	CAAAACGGAA	GCCGTCAATA	TTATATTCCT	1440
GCACCCAGTA	TAGAAGAGAA	TCAATCATAT	ACTTGCGAAA	CATTTCTGTG	TCACTGGCTG	1500
TTTCATTTCC	AACACCCGTT	CCATTCTGGA	AGGTACCATC	TGGATTCATA	CGATAATAGT	1560
AATCAGGGAC	TGTTGTTTGG	AATGGTGCAT	CAACAACCTGA	GAAGGTATGG	TTATAGACTA	1620
CATCCATAAT	GACTCCAATA	CCCGCATCGT	GATAAGCTTG	AACCATCACC	TTCAAATCAC	1680
GAATGACCTG	AGCTGGATCA	TCTGGATTAG	TTGAAAAACT	AGTTTCTGGC	GCGTTATAGT	1740
TTTGTGGATC	ATAACCCAG	TTGTAGGTTA	CATTTCCATC	CTCATCGTAT	TCTTTATGAC	1800
GGTCTGCAAT	TGGTTGCAAT	TGAACATAAT	TGTAGCCCAG	CTTCTTGATG	TAATCAAAAG	1860
CAGTTGACTG	GCCGTATTGG	TTAACTGTTC	CAGCCTGAGC	AGCACCCAAG	AAAGTTCCTC	1920
GAAGATGTTT	ATCTACACCC	GATGTAGGTG	ATTTAGTCAA	ATCACGAATG	TGCATTTTCAC	1980
AGATAACTGC	CTTACATGGA	TTTTCCAAGC	GCCAAGTAGC	CTCCGAACCG	TGCTTAACCT	2040
CGAAGTTTTT	AACTTGCTTT	TCTACATGGC	TCAGAATAGC	TGAACGTTTG	CCATCAGGGC	2100
TGGTCGCGAT	TGTATAAGGA	TCACGTGTCA	GTGTTTGGTG	ATGAGGGAAT	TGGACTTGAT	2160
ACTGATAAGT	CTTACCTACC	AAATCTTCTT	CAACATCCAA	ACTCCAGACA	CCGATTGTAT	2220



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TGTCCTTATG	ATTATAAGAG	TAGCTATTGC	CTCTTTTCAT	CTCAAAAGTC	TTCCAAACGG	2280
GTGCATCATT	AGCAGCTGAT	TCATAAACGA	CAACTTGCAC	TTCTGTGCGCT	GTAGGTGACC	2340
AGAGAGAAAA	ATGAGCCTGA	TTGTCCTCTA	CACGGCAACC	CAATTCTCCT	TGGTAACCCC	2400
AATGATGATC	AAAAC TAGCA	CTGTTAATGG	CCTTATCAAA	GGCAAAAGGA	TTTTGATTTT	2460
TATAGAAAGG	ACTGGCAATA	GCAGGATTTT	CAGAGTAATA	AATCCTATCA	TCGCCTTCCA	2520
AAATCCAGAC	CTCTGTTAAT	AGGGGATAGT	GATTAAAACG	GATAGAATAT	TCTTTACTAG	2580
TTTGACCTGT	ATGAACCACA	AAATTCAAGC	TTTCTATAAC	ATGTGAACTT	GGGTGTTCAA	2640
AGCTAAATAA	AGCTCCAAAA	TAATCTTCTT	TGTAGGTTAG	CAAATCAATT	CGTTGATCCT	2700
GACTTTTTTAC	AAAGGAGCAA	GTGTCATATT	CTCCATTCTT	ACGATGGTAA	TGAATGCGCA	2760
TAGGGTAGTT	ATACATTTTT	TATTTTTCTT	TTTTACTTTG	TTTCTATTTT	ACTAATAAAT	2820
TTTTGTCAAT	CTCGTCTCAA	TTAACAGACA	TAGTCATATT	CTCTAAACTC	TGTTTTTAAA	2880
CGATCCATTA	CAAAC TTTCT	AGCCATGCCT	CATCTCTGAC	CTGGATACCA	AGTTCTTGTG	2940
CTTTTTGCAG	TTTACTTCCA	GCGTCTGCAC	CTACCACGAC	GAGGTCGGTC	TTTTTAGAAA	3000
TACTACCTGT	CACTTTGGCA	CCCAGACTTT	CGAGTTTACT	TTTAGCTTCT	GAGCGCTTGA	3060
GTCGTTCCAA	TTTTCTGTG	AATACCACGG	TCAAACCTGA	CAAGGCCGCA	TCCGCTACTA	3120
CCGTCTGTCC	TTTATAGTCC	AGATTGACCC	CAGTTTCTTT	CAATTCTCTG	AGCAGAATTT	3180
CAGAGCCTTC	TGTCGCAAAA	TAAGTCTGAA	GACTTTTGGC	AATCACGCCA	CCTAGACTTT	3240
CAATACTAGC	CACTTCCTCT	GAATCTGCCT	GAGACAGATT	TTCAATTGAA	TGGAAATATT	3300
GAAGTAAAAG	CTGACTAACC	TTGCTTCCGA	CATGACGAAT	TCCCAAACCA	AATAAGAGCT	3360
TCTCGGCAGA	ATTTTCCTTT	GATGCTTGGA	TAGCCTGATA	CAGTTTAGCA	GCGGACTTTT	3420
CCTTAACTCC	CTCTAAAAGG	AGGAAATCCT	CTTCTTGCAA	ACGATAAATA	TCCGCCACAT	3480
CCTTGACTAA	ATTAGCAGCA	AAAAGCTTCT	CAACAATAGA	TGGACCAAGG	CCTGTAATAT	3540
TCATAGCATC	ACGAGAAGCA	AAGTGAATCA	AGCCTTCCAT	GATTTGAGCA	GGGCAACGCG	3600
GATTGATACA	ACGTAGGGCC	ACTTCATCTT	CAAAGTGCAA	CAAGTCAGAG	TTACAACTTG	3660
GACAGTTTGT	AGGGATATCT	AGTTTTTCTT	CAGAAACCCG	TTTGGACTCT	ACCACACGTA	3720
AAACGGCAGG	GATGATGTCA	CCAGCCTTAT	ATACAATGAC	CGTATCGTCT	TTTCGGATAT	3780
CTTTTTCAGC	AATATAATCT	ACATTGTGCA	GGGTCGCACG	GCTAACAGTC	GTACCGGCAA	3840
GTTGTACTGG	TGTTAGATTA	GCAGTTGGAG	TTACAACACC	GGTACGGCCA	ACTGTCCAGT	3900
CAACTGATAA	GAGTTGAGCT	TCTTTTTCTT	CGGCAGGGAA	CTTGTAGGCT	ACTGCCCCACT	3960
TTGGAGCCTT	AACTGTAAAA	CCAAGTTCTT	CTTGACTTGC	TAGGTCGTTG	ACCTTGATTA	4020

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CCACTCCATC	AATATCGTAA	GGCAGATTTT	CCCGTTCCTG	TCCTACTTCT	TGGATAAAAT	4080
TCCAGATTTT	ATCTATGTTT	TCAGCCAAGA	TTGCTTAGG	ATTGACCACA	AAACCTAGTT	4140
GTTCTAGGTA	CTTCAAACCC	TTTTCTTGGC	TATCACGAGT	TGAAGGGCTG	GCTTCTTGAT	4200
AGAGAAACGT	TGCAAGATTA	CGCTTGGCAA	CTACTGCTGT	ATCCAACCTGA	CGCAGAGTTC	4260
CTGCTGCCGC	ATTACGAGGA	TTAGCAAATT	CAGGCTCTCC	ATTTTCTTGG	CGCGCTTGGT	4320
TAACTTGGTC	AAAGGAAGCG	CGTGGCATGT	AACATTCCCC	ACGAACTGTG	ATATCTAGTT	4380
CTTCTGGCAA	AGTCAAAGGG	ATGTCCTTAA	CACGCTTGAG	GTTTCTGTG	ATATTTTCAC	4440
CAATTGAACC	ATCTCCACGT	GTTACCCAG	CAACCAAAT	CCCCTTTTCA	TAAGTCAGCG	4500
AGATAGATAA	GCCATCGATT	TTGAGCTCAC	AAATATAGGT	CGGATGAGCC	ACTTCCTTAC	4560
GAACACGCGC	ATCAAAAGCA	TCTAGCTCCT	CACATGAAAA	AGCATCCTGC	AAACTATAAA	4620
GAGGATACTG	ATGACTGTAT	TTTTCAAAAC	CATCTAAAAAC	CTTGCCACCA	ACACGATGAG	4680
TCGGACTGTC	TGCTAGCACT	TGCTCTGGAT	AAGCAGTTTC	TAACTCGACC	AACTCACGGT	4740
AAAGGCGGTC	ATACTCACTG	TCTGAAACCG	AGGGATTATC	GCTGGTATAG	TACTCAGTCG	4800
CATAGCGATT	GAGCAAAGCG	ACTAACTCAT	TCATTCTTTT	ATTCATAAGA	CCATTTTACC	4860
ATAAAACAAG	CCCTCCTCAC	AAACGAGAAG	GGCGGAAAAA	ACACTTAGTT	TGAAATTATT	4920
TTTGAAACTC	AAGCAACCTT	ATATCAATTT	TTCAAAATGA	GTTTGAACAT	ATCCGAGAGC	4980
TAAGAAATAT	AAGGCTACAA	CTCCAAGTCC	AATAATCAAG	AAAGAATAAA	GATGGACACT	5040
TGGCAAGACT	GTCATAAATC	CTTTTGCAAT	AGGCATAAAT	AGAATAGCTA	AGGTAAAAAT	5100
TGTACTCAGT	ACTCTTCCAA	GAAATTCGCT	CTCAACCTTG	GTTTGTACTT	GAGTAAAAAA	5160
GTGAATATTA	AAAATCGTCA	TAAACAATTC	ACAAACTAAA	TTTCCAGAAA	AGGAAAGAAA	5220
AGTTGGAAGT	GGTAATCCCA	TCATAAAAAC	TCCGACACCT	GTCAAAGCCA	GTAAAATCAA	5280
AAGATTATAA	ATATTAGCTT	TAATTTTACT	AGCTAGAAGA	GCCCCAATGA	TGGAACCAAT	5340
AGCCCCCATA	GTTAAAATAC	TTGCATAGGC	TCCTTCTGAC	CCGTAAAGCT	GATTCGAAAA	5400
GGGAAGTAGA	AATTCAAAAG	CTGCAAAAAA	GAAATTAACG	CTGGAAGCTA	CCAGCAAAAG	5460
GAAGAAAATT	TCTTGCTGAT	GCCAGATATA	GTGTAACCCA	TCCTTGATAT	CTACAAAAAT	5520
ATCTCTCCCA	GTAAAAGCCT	TTTTCTCTTG	AACTTTTGCT	TCCTCTTTTG	GAAGGAAAGC	5580
CACTAGAACA	AAAGCAATGA	AAAAAGTCAG	CGAGTCTAGC	AGTAGCGTCA	TATGGAGACT	5640
TGCAAACTGT	AAAACAAGGA	AGGAAAGAAC	AGGAGAGCTA	ACACCTACAA	CCTGCAAAAC	5700
CAGCTCTAAG	CGAGAATTAT	AGATCACAAT	CTCATCTTTC	TCCACCACTT	CAGTTATGAT	5760

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AGCTTTATTG	GCTGTGCGAG	AAAAGGCAAA	AGCAATAGCC	TGCACAATGT	TAGCAACAAT	5820
CAAAGCGCCA	ATCATCCAGC	TATCATTCCT	TATGAAAGAA	ATAGCCAGAC	AAAGAATCCC	5880
ACAAACAAGA	TCTGCCGTCA	TTAAAATCTT	ACGACGAGAA	AAACGGTCTG	AAATAACTCC	5940
GCCAAAGGGA	TTGACGAGAA	TAGATGTGAC	GAGCTCAGAA	ATCTGATACA	TTCCTAAAAC	6000
TGTCTGTCCT	ATAGTCCCCA	TAGAAGCCAA	CCAGACACTA	TTTCCATAAT	CATAGAGCAT	6060
ATTTCCCAT	TTATTGATAG	CCCCACGGCT	AATCAACTGC	ACTGCATAGC	GATTCATATT	6120
AAAGCTCCTC	TCAAATTTTG	AACTATTGT	ATCAAAACCG	AAAGGAGCTT	TTTATTTTTT	6180
CCCTTATTTG	GGAAAATTAA	CTTTTGACAA	ATTTTTTCGTA	GTGTTCTCTGA	TAATAGGCTA	6240
CTTGCTCTGG	AAGACCTAAC	ACATCAAAAA	TATGCATGGC	CTCTTGCATC	TGCTTACAGC	6300
CTTCTTTACA	CTGTCCTTTT	TGATATAAGG	CAAAACCTTT	TAAATAATGG	AAAACATTAC	6360
GCTCATAAAG	CTTAATACCT	TTGTCAATAA	TCTTCTCTGT	ATAAGCCTCA	AAATAGTTGG	6420
CATTATAAAA	AGAAGAATGC	TCTAAACAAT	GCTGGTAACA	ATTGAGGGCC	AAAATCAACA	6480
CTAATCTCTT	ATGGCGACTA	ATCTCTTGGT	AAAATTCTCTC	CCTCTCCATA	ACTTCTCTAC	6540
CAATCCGAGT	GACATAGTCT	ACATCGTAGA	AACTATAGAG	GTTACCGAAA	AGAATCAACT	6600
CATACATGGT	CCATTCTTCT	GTTTTGAAGA	GATAATCTGC	TACCTTACCC	AAATCATCCT	6660
GCTTCATATC	ATAACTCGCA	TCTCTTTGAC	AAATCAGACC	TTGTAGCAAA	ATCCAGTTCA	6720
GCTCAAAATA	AAGGGGAGTC	GTCGAACTCT	TAGACTTTTC	AAGTTGTTCT	CTTTGAAGCT	6780
TTTGAAAACC	TGCAATATCG	TTTGAATAGT	AAAGTGGGAT	AATCTGTGCC	ATCATAGACA	6840
CATGTTCATG	ATTATGAAAA	TTCCTTGCCT	TATCCATGAA	ATTTTCGATT	GTTACATGAA	6900
TGTTATCCAA	AATCTCAAAG	AAACGGGAGA	CTGCCAGGTC	AGACTCCCCA	AGCTCAAAGC	6960
GAGATAACTG	AGAGGTAGAG	CAGGATTCGC	CTGCTGCTTC	CTTTAAAGAA	TAATTTCCAC	7020
TTGTTGCAAA	TTCACGAAAT	ACTTTTCCAA	GATGTTCCAT	CTTTACACCT	GCTCTGATAA	7080
TTCTTCCCAC	TCAAGCATAG	CTTCTTCCTG	ACGATGGCTG	ATTTTGTCCA	GCTCAGCCTG	7140
TAATTCCATG	AGTTTGTCGG	CATCGTTTGT	TTCCAACATT	TGTTCAAGAA	TGGCTTGGCT	7200
TTGACTTTCT	AGCTCTTCAA	TTTCAGCTTC	TAGACTTTTCG	ATTTGTCGCA	TGAGTTTGCG	7260
AACTTCTTTT	TGACTTTCTT	TCTGGGCCTG	ATAGTCATTG	ACTGGACTTG	CTTCCTTTGC	7320
TTGATTGCTA	GTTGAAGCTT	CCTCAGTCTG	ACTCATTTCT	GCTGTTGCTT	TCTTCTCAAC	7380
ATAGTAGTCG	TAATCTCCAA	GGTAGAGAGT	TGAACCATTC	TCAGACAATT	CCAAAACATG	7440
AGTTGCCACA	CGATTGATAA	AGTAACGATC	ATGACTGACA	AACAGCAAGG	TTCCATCAAA	7500
GTCAATCAAG	GCATTTTCTA	GCACTTCCTT	ACTATCAATA	TCCAAGTGGT	TGGTCGGCTC	7560

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ATCCAGAATC	AAAAAGTTAT	TGTTTTCCAT	AGACAATTTA	GCTAAAAGCA	AACGAGCTTT	7620
TTCGCCACCA	GATAGCATGC	CGACTGATTT	TTTAACATCA	TCTCCTGAGA	AAAGGAAGGC	7680
TCCAAGACGG	TTGCGGATTT	CAACTTCTGG	TGTCAGTTTG	AAATCATTCC	AGAGTTCATC	7740
CAGCACCGTA	TTACTTGGTG	TCAGCTTGCT	TTGGGTTTGG	TCATAGTAAC	CAACCTCAAC	7800
ATTAGCGCCA	AAGCGCTTTT	CTCCCTTGAT	AAAAGGAATC	TGGTCCACAA	TAGACTTGAT	7860
AAAGGTTGAC	TTGCCGATAC	CATTTGGACC	AACGATAGCG	ACAGCATTCA	TCTTACGAAG	7920
ATCTAGGTTA	ATCGGTTGTG	ACAAGACTTC	CCCGTCATAG	CCAACAGCTG	CATTTTCAAC	7980
AGTCAAAACA	ACATTGCCCG	ACGTTTTTTC	AGACTGGAAG	GTCATGTTGG	CTGATTTCTT	8040
GCCAGCTTCA	GGCTTGTTCA	AACGTTCCAT	TTTTTCCAGT	TGTTTACGGC	GAGATTGAGC	8100
ACGTTTAGTC	GTTGAAGCAC	GAAGTAGATT	GCGATTGACA	AAGTCTTCCA	GAGCAGCGAT	8160
TTCTTCTGT	TGCTTTTCAT	AGTTTTTTGC	CTCAGTAACT	AGCTTTTGCT	CCTTCAATTC	8220
GACAAAACGA	GAGTAATTCC	CCACATAGCG	ATCCAAGGAA	TGCTTGGTCA	AATCTAGCGT	8280
AATTGTCGCA	ACCTTGTTCA	AGAAATAACG	GTCGTGGCTG	ACGATAATGA	GGGCACCGCT	8340
ATAGTTTACC	AAGTAATTCT	CTAGCCAGGC	GATGGTTTCA	ATATCCAAGT	GGTTAGTTGG	8400
CTCGTCCAAG	ACCAAGAGAT	TGGGCTTTTC	AAGGAGCATT	TTGGCAAGTG	CCAAACGAGT	8460
ATTTTGACCA	CCAGAAAGCT	CAGCAATTTT	CATCTGCCAC	ATAGACTCGT	CAAAC TTGAA	8520
TCCATTCAAA	ATCGCTCGAA	TATCAGCTTC	ATAGGTAAAG	CCACCTGCTT	GGCGAAAATT	8580
CTCAGATAAG	CGGTCATAAT	CTGACATCAG	TTTATCCAAA	TCCTCACCAG	ACTTTTCACC	8640
CATCTCCAGC	TCCATCTGAC	GCAGTTGTCT	CTCCGTCCGA	CGCAAATCAT	TAAAGACATG	8700
AAGCATTTCA	TCGTAGATGG	TATTTTTCAGA	CTCAAAACGG	CTATCTTGGG	CTAGGTAAGA	8760
CAGAGAAATA	TCTTTTTTCT	TATTGATTTT	TCCGCTAGTT	GGCTCCTCTT	CTCCAACTAA	8820
AATCTTCAAA	AGAGTAGACT	TACCTGCACC	ATTTTTCCTA	ACAAGAGCAA	TCCGATCTCG	8880
TTCATCAACC	TGCAGGTTGA	TATTATCGAA	AAGAACCTCT	CCTGCAAAAG	AACGTTCAAT	8940
TTTATTAGCT	TGTAAAATAA	TCATACAAGT	AGTATAGCAT	GTTTCCCTAA	GGCATTTCAAG	9000
ATAATCGTAA	GTCTTTTAGT	ACAAC TTTTA	TAACATAAAA	TAAACTAAAT	TATGTATATT	9060
TTATATTAGA	TTACTTCACT	ATCTTGTTGG	ATTTTCTAAC	CAGCTAATCT	TGTTTCAAAT	9120
AGTTATCGCA	CAAGTCTATT	ATTTAATTCT	TTTCATCATT	TACGTACGTA	TAGCAGATTG	9180
AAATAAGATG	AGAACAAATC	GATTGGGAAA	GTAAAATTAA	TTTCTATAAA	TGTTTTAGCA	9240
ATTGTTTCGT	ACTATTTTAG	ATTCAGTCTA	CTATATACAA	TATTTTCGGA	ACATTCAACT	9300



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TTTTAACTCT	ATTTATTACT	AGATTTTCATA	ATTAAAAAAC	CTACTGACCA	AGCTAGAAAG	9360
CTTGATACAA	TAGGCTTTTT	AAAGACTGAT	TATTTAACAG	CGTCTTTAAG	AGCTTTACCA	9420
GCTTTGAATG	CTGGTACTTT	AGAAGCTGCA	ATTGTCATTT	CTTTACCAGT	TTGTGGGTTG	9480
CGACCTTTAC	GTTCTGCGCG	CTCACGAACT	TCAAAGTTAC	CAAAACCGAT	CAATTGAACT	9540
T						9541

## (2) INFORMATION FOR SEQ ID NO: 133:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3502 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 133:

TTGACTATCC	TATCATGCTT	TCTAAGGTCT	ACTCAAGAAA	ATCATTTTCA	AGTTTTCACA	60
CCTTTCTCAA	AAAAGTTAAA	AAATTTTCTC	AAAAACGCTT	GACTCTGACC	TAAGGCGAAG	120
GGTTATACTA	TCATTGTAAG	GAGGAAATCA	TGTACCATAT	AAAAGAAGCT	GCGCAGCTTT	180
CAGGTGTCTC	TGTCAAGACC	CTGCATCACT	ATGACAAGAT	AGGACTCTTG	GTCCCCTTAA	240
AGTCGGAAAA	CGGCTATCGA	ACCTACAGTC	AAGAGGATTT	GGAACGCCTT	CAGGTCATTC	300
TTTACTACAA	ATATCTAGGC	TTTTCTTTAG	AGAAAATAGC	AGAGCTGTTA	AAGGAAGAAA	360
GGACAGATTT	ATTGCCCCAT	TTGACTAGGC	AGTTGGACTA	TCTAACTCGC	GAAAGGCAAC	420
ATCTGGATAC	CTTGATTTCC	ACCTTGCAAA	AAACTATTCA	AGAACAATAA	GGAGAAAGAA	480
AAATGACCAT	TGAGGAAAAA	TTCACGGGAT	TTAGCTATCA	AGACAATCAA	AAATACCACC	540
AAGAAGCGGT	AGAGAAATAT	GGTCAAGAAG	TCATGGGACA	AGCGCTCGAA	CGCCAAAAAG	600
GTCACGAAGA	CGAGGCTACG	GCCGCCTTTA	ACCAAGTCTT	TCAAACCTTG	GCACAAAATC	660
TTCAAGTTGG	TTTACCTGCA	ACAGCAACCG	AAAACCAGGA	GCAAGCAGCC	AAGCTCTTGC	720
AAGCCATTTC	CACTTATGGA	TTTGACTGCT	CTATTGAGGT	ATTTCGGTCAT	ATCGGTAAAG	780
GTTACGTCTA	CAACCCAGAG	TTTAAGGAAA	ACATTGACAA	GTTTGGTTCT	GAAACAGCCC	840
AGTACACGTC	AGATGCCATT	GCGGTTTACG	TTCAGACAAA	TGCAGAATAA	ATAGGCTAGG	900
AATTTCCTAG	CCTATTTTTT	ACTTCAAATC	ATAAAGCCAG	TCGTCACCGT	TTTTGTAGTA	960
AAAGAATTCA	CTGAGATCTT	CTTCTAGAAA	CACACGAAGC	ATATCAGACA	TATCATCGGT	1020
TGCAAGTTTT	AGATGAGAAA	GATTTTCAAA	GTCCTCCCAC	CAAACCTTCC	CTTCGTCTGA	1080
AGACTGGAGT	TCACCAGTAA	AGTGTTCTGT	CTTGTAATAA	AGGACGACAT	AACGATAATC	1140

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CTTGTCGTCA	TACCAGTTTT	TGATACCACA	GAGTTGGGGT	TTGGAAATGA	TCAGACCAGT	1200
TTCTTCTTTC	ACTTCACGAA	TGACAGCATC	GACAAAGGAT	TCGCCACGTT	CAACATGACC	1260
ACCAGGAAAA	GTAATGCCAG	ACCAGTCGGG	ATTAACTCGG	TCTTGGACCA	GGACCTTATC	1320
TCCGTTTTTA	ATCATACACA	TGTTAACAAA	TTCGACTGCC	TCTCTTCTGT	TCATTCTTCA	1380
CAACCTTTAA	TCTTTAATCA	TAATGCAGAC	TTCCCGCCAC	CCAGCCGGTA	CAGAGGGCAG	1440
AAGTGATGTT	AAAGCCACCC	GTGTGGGCAT	TGATATCCAT	AACTTCGCCT	GCAAAGTGGA	1500
GGCCAGGTAC	CAGCTTACTT	TCAAGGGTTT	TAGGATTGAT	TTCCCTGAGA	CTGACTCCAC	1560
CCTTGGTAAAC	AAAGGACTTT	GCAAGGGACA	TTTTTCCAGT	TACAGGAATT	TTAAGTTCTT	1620
TAATGGACTG	GACAAGTTGT	TCTCGTTCCT	TTTCAGTCAG	TTGTTTGAAT	TTTTCAGGAT	1680
ATCCTTGTAC	AAAAAATTCG	GCCAAGCGTT	CTGGTAACAA	GGTTTTTAAA	GCGTTTTTCA	1740
AGGATTTTTTC	CCGATTTTCT	TCTAGAAATG	TAACCAAGTC	CTTCTCAGAA	AGTTGAGGCA	1800
AAACATCGAG	TGAGAGAACC	TCCCCACCTT	TGACAAAGCT	AGACATGCGT	AGGGCAGCAG	1860
GACCTGACAA	ACCAAAGTGG	GTAAAGAGTA	AATCATGAGT	GATGACATGC	TTACCATAAC	1920
TTAGGGTCAC	ATCGTCCAGA	GAAATACCTT	GTAAGGCTTT	ATGTGGAAAA	TCTGTTAATA	1980
AAGGACTTTC	AGCAGCCTCA	AGATCGGTGA	TGGTATGCTT	AAAATGGCGA	GCAATCTCGT	2040
GACCAAAACC	AGTCGAACCA	GTCGAAGGAT	AAGACTTACC	ACCTGTTGTG	ACAATGAGTT	2100
TCTCACAAGT	GAAGGTTTGA	TCCGCTGACT	TAAGGACAAA	CTGGTCATCT	ACTTTTTTAA	2160
CAGAAACGAT	TTCTATTTGA	GTAGCAACTT	GACCACCTAG	TTCGGTGATT	TTCTTTTCCA	2220
AAGCTTCGAT	AATAGTCCGA	GACTTGTCAC	TGGCTGGAAA	GACGCGTCCG	TGGTCTTCGA	2280
CCTTAAGTTT	AACACCATTT	TCTGTAAAAA	AGTTGATGAT	GTCATGATTA	TCGAACTGGG	2340
AGAAAACACT	GTAAAGAAAG	CGTCCGTTTC	CAGGAATTCC	AGCTAGCAGG	TTGTCTAAGC	2400
TACCATTGTT	GGTCACATTG	CAACGTCCCC	CACCAGTCCC	AGCTAATTTT	TTTCCAAGTT	2460
TCCGATTTTT	TTGATGAGG	AGGGTTTTCT	GTCCATAAAA	GCTACTGGAA	ATCGTAGCCA	2520
TCATACCAGC	AGGTCCCCCA	CCGATGACAA	TAGTATCAAA	ATGTTTCATA	GCTCTATTGT	2580
ACCACAAAAA	AACAAGAGAT	GATGGTCACC	TCTTGTCAGG	AATGCAATTA	ATCAATTTCA	2640
TAGCCCATCA	GCAAACCGCC	CTCTTCTGCA	TAGAAACTGC	AGAGACCAGA	GGTTGGTAGA	2700
ATTTTAATAT	CCGCTTGTGG	GAAGGTTTCA	CGGATTCGCT	CTGAGAGCTG	TTGACAACAT	2760
TTTTCGTTAT	TGCGTTGGGC	CATGACAATA	CGGCCACCAG	CATATCCAGC	TTTTACTAAC	2820
TCATCATAGG	CAGCTTGAAC	TGATTTCTTT	GATCCCCTTG	CTTTTTGTAG	CAATTCGAGA	2880

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GTCCCAGTTT	CACTAGCTTT	TCCGACCATA	CGAATGTTGA	GAAGGCCAAC	GACCGTACCG	2940
ATAAGCTTGC	TCAAACGGCC	GTTCTTCACC	AAGTTATCGA	CTTTGGCTAG	GACAAAGAGC	3000
AACTTAGTTT	TTTCTTGATA	GGCGGTGATA	GCTTCAACCA	CTTCTTCAA	AGACAAGCCC	3060
TGGTCAATCA	AGTCATTCAA	TTTTTCTACG	AGTAGGTCAA	CTTCACCACC	AGCAGATAAA	3120
CTATCAATCA	CATGAATCTT	AGTGTCTAGG	TGGTCTTCCA	GATAAATATT	CTTTGCTAGT	3180
TGAGCACTAT	TGTGACTGCC	AGAAAGGGTA	CCTGTGATGG	TTACTAGGAA	AATGTTTTTG	3240
GCACCTTCAA	ATGCTCGCAA	ATAGTCATCT	GGGCTTGGAC	AAGCCGATTT	TGAAGCTTCT	3300
GCAGTTGCAT	ACATGGTTTC	CATCATTTGG	TCAATATCGA	GACTGGCGTC	ATCAACAAAG	3360
ACCTGATCAG	CTACTTGAAT	GGTTAAGGGG	AACTTACAA	AGGTGTGTGT	AATAGCTGGT	3420
GTTGGCAGTT	GACGATAATC	ACAACCAGAG	TCAGCAATAA	TCTTCCAAGT	CATAGAAATT	3480
CTCCATCTTT	GTCAGGAACG	AT				3502

(2) INFORMATION FOR SEQ ID NO: 134:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12665 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 134:

CGATTGATTT	TTTTAAAGCG	TTCGATAGAG	AATGAGAAAC	GAATCCTTAG	CAATGGCGGG	60
AAAGAAATTT	GAGTTGAGAA	TACAAAACGA	TTAACTATGG	CTCATATTGT	TTTTTATCTC	120
TCTTGCTTGG	TTGAGGCAAT	GGTGCACAAG	ACAATTTTTG	ATGGCATGGG	CATGGTTGGT	180
TTAGTCTTGC	TTATTTTTTC	TATGCTGATG	TTGATGTTGG	TGATTCACCT	GTTGGGAGAT	240
ATTTGGACAG	TGAAGCTTAT	GCTTGTCAAT	AATCACAAAT	ATGTAGATCA	TATCTTGTTT	300
AGGACAGTAA	AACACCCTAA	TTACTTTTTA	AATATCTTTC	CTGAGTTGAT	TGGCTTGACC	360
TTGTTGAGTC	ATGCTTATGT	GACTTTTGTT	TTAGTTTTTC	CAGTTTATGC	AGTTATTTTG	420
TATCGACGAA	TAGCTGAAGA	GGAAAAGCTA	TTACATGAAG	TTATAATCCC	AAATGGAAGC	480
ATAAAGAGAT	AAATACAAAA	TTCGATTTAT	ATACAGTTCA	TATTGAAGTG	ATATAGTAAG	540
GTTAAAGAAA	AAATATAGAA	GGAAATAAAC	ATGTTTGCAT	CAAAAAGCGA	AAGAAAAGTA	600
CATTATTCAA	TTCGTAAATT	TAGTGTTGGA	GTAGCTAGTG	TAGTTGTTGC	CAGTCTTGTT	660
ATGGGAAGTG	TGGTTCATGC	GACAGAGAAC	GAGGGAGCTA	CCCAAGTACC	CACTTCTTCT	720
AATAGGGCAA	ATGAAAGTCA	GGCAGAACAA	GGAGAACAAC	CTAAAAAACT	CGATTCAGAA	780

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CGAGATAAGG CAAGGAAAGA GGTCTGAGGAA TATGTAAAAA AAATAGTGGG TGAGAGCTAT	840
GCAAAATCAA CTAAAAAGCG ACATACAATT ACTGTAGCTC TAGTTAACGA GTTGAACAAC	900
ATTAAGAACG AGTATTTGAA TAAAAATAGTT GAATCAACCT CAGAAAGCCA ACTACAGATA	960
CTGATGATGG AGAGTCGATC AAAAGTAGAT GAAGCTGTGT CTAAGTTTGA AAAGGACTCA	1020
TCTTCTTCGT CAAGTTCAGA CTCTTCCACT AAACCGGAAG CTTTCAGATAC AGCGAAGCCA	1080
AACAAGCCGA CAGAACCAGG AGAAAAGGTA GCAGAAGCTA AGAAGAAGGT TGAAGAAGCT	1140
GAGAAAAAAG CCAAGGATCA AAAAGAAGAA GATCGTCGTA ACTACCCAAC CATTACTTAC	1200
AAAACGCTTG AACTTGAAAT TGCTGAGTCC GATGTGGAAG TTAAAAAAGC GGAGCTTGAA	1260
CTAGTAAAAG TGAAAGCTAA CGAACCTCGA GACGAGCAAA AAATTAAGCA AGCAGAAGCG	1320
GAAGTTGAGA GTAAACAAGC TGAGGCTACA AGGTAAAAA AAATCAAGAC AGATCGTGAA	1380
GAAGCAGAAG AAGAAGCTAA ACGAAGAGCA GATGCTAAAG AGCAAGGTAA ACCAAAGGGG	1440
CGGGCAAAAC GAGGAGTTCC TGGAGAGCTA GCAACACCTG ATAAAAAAGA AAATGATGCG	1500
AAGTCTTCAG ATTCTAGCGT AGGTGAAGAA ACTCTTCCAA GCCCATCCCT GAAACCAGAA	1560
AAAAAGGTAG CAGAAGCTGA GAAGAAGGTT GAAGAAGCTA AGAAAAAAGC CGAGGATCAA	1620
AAAGAAGAAG ATCGCCGTAA CTACCCAACC AATACTTACA AAACGCTTGA ACTTGAAATT	1680
GCTGAGTCCG ATGTGGAAGT TAAAAAAGCG GAGCTTGAAC TAGTAAAAGA GGAAGCTAAG	1740
GAACCTCGAA ACGAGGAAAA AGTTAAGCAA GCAAAAGCGG AAGTTGAGAG TAAAAAAGCT	1800
GAGGCTACAA GGTTAGAAAA AATCAAGACA GATCGTAAAA AAGCAGAAGA AGAAGCTAAA	1860
CGAAAAGCAG CAGAAGAAGA TAAAGTTAAA GAAAAACCAG CTGAACAACC ACAACCAGCG	1920
CCGGCTCCAA AAGCAGAAAA ACCAGCTCCA GCTCCAAAAC CAGAGAATCC AGCTGAACAA	1980
CCAAAAGCAG AAAAACCAGC TGATCAACAA GCTGAAGAAG ACTATGCTCG TAGATCAGAA	2040
GAAGAATATA ATCGCTTGAC TCAACAGCAA CCGCCAAAAA CTGAAAAACC AGCACAACCA	2100
TCTACTCCAA AAACAGGCTG GAAACAAGAA AACGGTATGT GGTACTTCTA CAATACTGAT	2160
GGTTCAATGG CGACAGGATG GCTCCAAAAC AATGGCTCAT GGTACTACCT CAACAGCAAT	2220
GGCGCTATGG CGACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTATCT AAACGCTAAT	2280
GGTTCAATGG CAACAGGATG GCTCCAAAAC AATGGTTCAT GGTACTACCT AAACGCTAAT	2340
GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTACCT AAACGCTAAT	2400
GGTTCAATGG CGACAGGATG GCTCCAATAC AATGGCTCAT GGTACTACCT AAACGCTAAT	2460
GGTGATATGG CGACAGGTTG GGTGAAAGAT GGAGATACCT GGTACTATCT TGAAGCATCA	2520



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GGTGCTATGA	AAGCAAGCCA	ATGGTTCAAA	GTATCAGATA	AATGGTACTA	TGTCAATGGC	2580
TCAGGTGCCC	TTGCAGTCAA	CACAACTGTA	GATGGCTATG	GAGTCAATGC	CAATGGTGAA	2640
TGGGTAAACT	AAACCTAATA	TAACTAGTTA	ATACTGACTT	CCTGTAAGAA	CTCTTTAAAG	2700
TATTCCCTAC	AAATACCATA	TCCTTTCAGT	AGATAATATA	CCCTTGTAGG	AAGTTTAGAT	2760
TAAAAAATAA	CTCTGTAATC	TCTAGCCGGA	TTTATAGCGC	TAGAGACTAC	GGAGTTTTTT	2820
TGATGAGGAA	AGAATGGCGG	CATTCAAGAG	GCTCTTTAAG	AGAGTTACGG	GTTTTAAACT	2880
ATTAAGCCTT	CTCCAATTGC	AAGAGGGTTT	CAATCTCTGC	CAGGGTGCTG	GCTTGCGAAA	2940
TGGCTCCACG	GAGTTTGGCA	GCGCCAGATG	TTCCACGGAG	ATAGTGAGGA	GCGAGACCGC	3000
GGAATTCACG	AACTGCGACG	TTTTCTCCTT	TGAGGTTAAT	CAATCGTTTC	AAGTGTTTCGT	3060
AGGCGATCTT	CATCTTGTCT	TCAAAGGTCA	AATCAGGTAG	GATTTCTCCT	GTTTCAAAGT	3120
AATGGTTGAT	TTGGTTGAAG	AGGTAAGGAT	TTCCCATGGC	AGCTCGGCCA	ATCATGACTG	3180
CGTCAGCACC	AACTTCTTCG	ATGCGTTGCT	TGGCTTCTTG	GACAGTACGG	ATATCACCGT	3240
TGGCGATGAA	TGGAATCTTG	GTTAGAGCTT	GGGCAACCTT	GTAAAGGGTC	TCAAGGTCTG	3300
CGTGGCCAGT	ATACATTTGT	TCACGGGTAC	GGCCATGCAT	GGCGAGGGCA	GAAACACCTG	3360
CAGCTTCAGC	AGCGAGAGCA	TTTTCTACTG	CAAGAGATGG	GTCCGCCCAG	CCGGTACGCA	3420
TTTTGACAGT	AAGTGGGATA	TCAAGGACAG	ACTGGACCTT	GTTGATGATG	GAGTAAATCT	3480
TGTCTGGATC	CTTGAGCCAC	ATAGCACCAG	CTTCGTTCTT	CACGATTTTG	TTGACAGGGC	3540
AGCCCATGTT	GATATCGACG	ATATCGGTCT	TGGTGTTTTT	TTGGATGAAT	TCTGCTGCGC	3600
GTGCTAGGCT	GTCTTCATCG	CTACCAAAAA	GTTGGATAGA	GACAGGGTTT	TCGCCCTCAT	3660
CGATATGAAG	CATGTGCAGG	GTTTTTTCGT	TGTTGTATTG	GATTCCCTTG	TCAGAGACCA	3720
TTTCCATTAC	AACGAGTCCA	GCTCCGAGCT	CCTTTGCGAT	AGTACGAAAG	GCTGAGTTGG	3780
TCACGCCAGC	CATAGGCGCT	AAAACGGTAC	GATTGGGAAT	CTCAATATTG	CCAATCATAA	3840
AAGGTGTATT	AAGATTTGTC	ACGAATGAGT	TCCTCCAGGT	CCTTTTCATC	AAAGTTGTAA	3900
GTAGTTTGGC	AGAATTGACA	AGTGATTTCT	GCCCCGTGGT	CTTCCTCTTT	CATTTCCCTGT	3960
AAGTCTGAGC	TTGGAAGGCT	GGCAAGAGCG	TTCATAAAGC	GTTTCATGGCT	ACAGTCACAT	4020
TGGAAACGGA	TTTCTTCTTC	AGAAAGACGC	TTGTAGGCTT	CGTCCCCGTA	GATAGCCTTG	4080
AGGAGGGCTT	CGATATGGTC	GTCGCTTTCG	AGAAGAGTAG	AGATAGCTGG	CATTTCTTGG	4140
ATGCGTTTTT	CAAAGCGAGC	AATCTCTTCT	TTCTTGGCTC	CTGGCAAGAC	TTGAACTAGG	4200
AAACCACCTG	CAACCTTGAC	CTTGTCTTCC	TCGTCCAAAA	GGACATTGAG	GCCGACCGCT	4260
GAAGGCGTTT	GTTGGCTTTC	AGTAAGGTAA	AAGGCAAGGT	CTTCACCGAT	TTCTCCAGAG	4320

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ATGAGGGGAG	TTATAGAGTT	GTAAGGATTT	CCAGTACCGT	AGTCTGTGAT	AACGAGGAAT	4380
TGACCATTTC	CAACAAAAGG	TCCGACTAGG	ACTTCACCAG	TCGCAGTCTT	TTTGATGTCA	4440
ACACCAGGAT	TTTGAACATA	GCCTTTGACG	TTCCCCTTGG	TATCAGCGAC	GGTGATAATA	4500
GCACCTAGAG	AGCTAGATCC	CAACACCTTA	ACTGTAAGTT	TGGTATTTCC	TTTTTCATTG	4560
GCTGCGAGAA	TCTGGCTAGC	GATAAGAGTT	CGACCAAGCG	CTACAGTTGA	GCTAGCTTGG	4620
GTTTGATGTT	TTTCTTGAGC	AGTGCGGACG	GTTTCAGTGC	TATCAAGGAC	AAAAGCACGA	4680
AAGGcTCCGC	TTTCTGATAT	AGTTTTTAATA	ATTTTATCCA	TAGCTACTAT	TTTAGCATAA	4740
AAATGCCCAA	AGGGGGAGCC	GTGTGTTTAC	TGATTTTCAG	GATAATGGAC	CAGGAAATCA	4800
GCATGAAAAAT	AAAAAGAGAA	ACAGATTATT	TTAGCATTTG	TCAGATTTAT	GCTATGCTTA	4860
AGGTAGAAAA	TGAAAGGGAT	AACAAATGTA	TTTAGGAGAT	TTGATGGAGA	AAGCCGAGTG	4920
TGGTCAATTT	TCAATACTTT	CCTTTCTATT	ACAAGAGTCT	CAGACGACCG	TCAAGGCTGT	4980
AATGGAAGAA	ACAGGATTTT	CAAAAGCAAC	CCTAACCAAA	TATGTCACCC	TGCTCAATGA	5040
CAAGGCTTTG	GATAGTGGCT	TAGAGCTGGC	TATTCACTCA	GAAGATGAAA	ATCTGCGTCT	5100
GTCTATCGGT	GCAGCTACCA	AGGGGAGAGA	TATTCGGAGC	TTGTTTTTGG	AGAGTGCTGT	5160
TAAATACCAG	ATTTTGGTTT	ATCTTCTCTA	CCACCAACAG	TTTTTAGCCC	ATCAGCTGGC	5220
TCAAGAATTG	GTGATTAGCG	AGGCTACGCT	TGGTCGTCAC	TTGGCTGGTT	TAAATCAGAT	5280
TTTGTGAGAA	TTTGATTTAT	CCATCCAAAA	TGGCCGTTGG	CGAGGTCCAG	AGCATCAGAT	5340
TCACTATTTT	TATTTCTGTC	TTTTCCGAAA	GGTCTGGTCG	AGTCAGGAAT	GGGAAGGTCA	5400
CATGCAGAAA	CCAGAGAGAA	AACAGGAGAT	TGCCAATTTA	GAGGAAATCT	GCGGTGCAAG	5460
TTTGTCTGCG	GGGCAGAAAT	TGGACTTGGT	TCTCTGGGCT	CACATCAGTC	AACAACGTCT	5520
TCGGGTCAAT	GCTTGTCAGT	TTCAAGTCAT	AGAAGAGAAA	ATGCGAGGGT	ATTTTGACAA	5580
TATCTTTTAT	CTTCGTTTGC	TGAGAAAGGT	TCCGTCCTTT	TTTGCTGGGC	AACATATTCC	5640
ACTAGGAGTT	GAGGATGGTG	AGATGATGAT	ATTCTTCTCT	TTTCTCCTAT	CTCATCGCAT	5700
TCTTCCTCTT	CATACTATGG	AGTATATTCT	TGGTTTTTGA	GGGCAGTTGG	CAGATTTACT	5760
GACGCAATTG	ATTCAAGAAA	TGAAGAAGGA	GGAACTATTG	GGGGATTATA	CAGAGGACCA	5820
TGTCACCTAT	GAATCAGTC	AGCTTTGTGC	TCAAGTCTAT	CTCTATAAGG	GCTATATTTT	5880
ACAGGATCGC	TACAAGTACC	AGTTAGAGAA	TCGTCATCCA	TATTTACTGA	TGGAACATGA	5940
TTTTAAAGAG	ACAGCAGAGG	AGATTTTTC	TGCTCTACCT	GCTTTTCAAC	AGGGGACAGA	6000
TTTAGATAAG	AAGATTCTCT	GGGAATGGCT	CCAGTTAATC	GAATATATGG	CTGAAAACGG	6060

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TGGCCAGCAT	ATGCGGATTG	GTCTGGATTT	GACATCTGGT	TTTCTTGTCT	TTTCAAGGAT	6120
GGCAGCCATT	TTGAAACGGT	ATTTGGAATA	CAATCGTTTT	ATTACCATTG	AAGCTTATGA	6180
CCCTAGTCGG	CATTATGATT	TGCTGGTTAC	CAATAACCCG	ATTCATAAGA	AGGAACAGAC	6240
ACCAGTCTAT	TATTTAAAAA	ATGACTTGGA	TATGGAGGAT	TTGGTAGCGA	TTCGCCAGTT	6300
ATTATTCACT	TAAAAGGCTT	GGTTAATCCA	GGTCTTTTTT	GTGAAATTCA	CACAATCTCC	6360
TCACATTTTT	TTAAAAATTA	AAAAAAGTTG	ATAACAAGA	AAGCGCTTTA	TTTTGTATAC	6420
TAGTAAGTGT	AAAGAGGAAA	CACCTCAAGA	TCTTTATCAG	GAGGACAGTA	CATGTCACAA	6480
GAAAAATACA	TCATGGCCAT	TGACCAGGGA	ACTACAAGTT	CTCGTGCCAT	CATTTTCAAC	6540
AAAAAAGGGG	AAAAGGTTAG	CTCGAGTCAA	AAAGAGTTTA	CCCAGATTTT	CCCTCAGGCA	6600
GGTTGGGTTG	AGCACAATGC	CAATGAAATT	TGGAACCTCTG	TTCAGTCAGT	TATTGCGGGT	6660
GCTTTCATCG	AAAGTGGTGT	CAAGCCAAAT	CAAATCGAGG	CAATCGGGAT	TACCAACCAA	6720
CGTGAAACAA	CGGTTGTCTG	GGATAAGAAA	ACAGGACTTC	CTATCTACAA	TGCTATCGTT	6780
TGGCAGTCAC	GCCAGACAGC	ACCTTTGGCT	GAGCAACTAA	AAAGCCAAGG	TTATGTGGAA	6840
AAATTCATG	AAAAGACTGG	TTTGATTATT	GATGCTTACT	TCTCTGCTAC	CAAGGTTCGT	6900
TGGATTTTGG	ATCATGTAGA	AGGTGCTCAA	GAGCGAGCAG	AAAAAGGGGA	ATTGCTCTTT	6960
GGTACTATCG	ATACTTGGTT	GGTTTGAAA	TTGACTGACG	GTGCGGCTCA	CGTGA CTGAC	7020
TACTCAAATG	CAGCTCGTAC	CATGCTTTAT	AACATTAAAG	AACTCAAATG	GGATGATGAG	7080
ATTTTGAAA	TCCTTAACAT	TCCGAAGgCT	ATACTTCCAG	AAGTTCGTTC	TA ACTCCGAA	7140
ATCTACGGCA	AGACAGCTCC	ATTCCATTTC	TACGGTGGAG	AGGTGCCAAT	CTCAGGTATG	7200
GCTGGGGACC	AACAAGCAGC	CCTCTTTGGA	CAGTTGGCTT	TTGAGCCAGG	TATGGTTAAG	7260
AATACTTATG	GAACAGGCTC	TTTCATCATC	ATGAATACTG	GGGAAGAGAT	GCAGTTGTCT	7320
GAAAACAACC	TCTTGACAAC	CATTGGTTAC	GGAATCAACG	GTAAGGTTTA	TTATGCCTTG	7380
GAAGGTTCTA	TCTTCATCGC	AGGAAGTGCT	ATTCAGTGGC	TTCGTGACGG	TCTTCGCATG	7440
GTTGAAAATT	CACCAGAATC	TGAAAAATAC	GCTCGTGATT	CTCACAACAA	CGATGAAGTT	7500
TATGTCGTTC	CAGCCTTTAC	AGGTCTAGGC	GCTCCATACT	GGAACCAAAA	TGCTCGTGGT	7560
TCCGTCTTTG	GTTTGACTCG	TGGAACAAGC	AAAGAAGACT	TTATCAAGGC	GACTTTGCAA	7620
TCTATTGCTT	ATCAAGTGCG	TGATATCATC	GACACCATGC	AAGTGGATAC	TCAGACCGCC	7680
ATTCAAGTAC	TGAAGGTGGA	TGGTGGTGCA	GCCATGAACA	ACTTCCTCAT	GCAGTTCCAG	7740
GCGGATATTT	TAGGCATTGA	CATTGCACGT	GCTAAAAACC	TGGAAACAAC	AGCTCTAGGA	7800
GCGGCCTTCC	TAGCAGGTTT	GTCAGTAGGG	TACTGGAAAG	ACTTGGACGA	GTTGAAACTC	7860

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TTGAACGAGA	CAGGAGAACT	CTTTGAGCCA	TCTATGAACG	AATCTCGCAA	GGAACAACCTC	7920
TACAAGGGCT	GGAAGAAGGC	TGTGAAAGCA	ACTCAAGTCT	TTGCGGAAGT	AGACGACTAA	7980
TACTGGCAGA	ATAAAGCGAT	TTATTTAGAA	AGTGTGTAAA	TATGGAATTT	TCAAAGAAAA	8040
CACGTGAATT	GTCAATTAAA	AAAATGCAGG	AACGTACCCT	GGACCTCTTG	ATTATCGGTG	8100
GAGGAATCAC	AGGAGCTGGT	GTAGCCTTGC	AGGCGGCAGC	TAGCGGTCTT	GAGACTGGTT	8160
TGATTGAAAT	GCAAGACTTT	GCAGAAGGAA	CATCTAGTCG	TTCAACAAAA	TTGGTTCACG	8220
GAGGACTTCG	TTACCTCAAA	CAATTTGACG	TAGAAGTGGT	CTCAGATACG	GTTTCTGAAC	8280
GTGCAGTGGT	TCAACAAATC	GCTCCACACA	TTCCAAAATC	AGATCCAATG	CTCTTACCAG	8340
TTTACGATGA	AGATGGAGCA	ACCTTTAGCC	TCTTCCGTCT	TAAAGTAGCC	ATGGACTTGT	8400
ACGACCTCTT	GGCAGGTGTT	AGCAACACAC	CAGCTGCGAA	CAAGGTTTTG	AGCAAGGATC	8460
AAGTCTTGGA	ACGCCAGCCA	AACTTGAAGA	AGGAAGGCTT	GGTAGGAGGT	GGAGTGTATC	8520
TTGACTTCCG	TAACAACGAT	GCGCGTCTCG	TGATTGAAAA	CATCAAACGT	GCCAACCAAG	8580
ACGGTGCCCT	CATTGCCAAC	CACGTGAAGG	CAGAAGGCTT	CCTCTTTGAC	GAAAGTGGCA	8640
AGATTACAGG	TGTTGTAGCT	CGTGATCTCT	TGACAGACCA	AGTGTTTGAA	ATCAAGGCCC	8700
GTCTGGTTAT	TAATACAACA	GGTCCTTGGA	GTGATAAAGT	ACGTAATTTG	TCTAATAAGG	8760
GAACGCAATT	CTCACAAATG	CGCCCAACTA	AGGGAGTTCA	CTTGGTAGTA	GATTCAAGCA	8820
AAATCAAGGT	TTACAGCCA	GTTTACTTCG	ACACAGGTTT	GGGTGACGGT	CGTATGGTCT	8880
TTGTTCTCCC	ACGTGAAAAC	AAGACTTACT	TTGGTACAAC	TGATACAGAC	TACACAGGTG	8940
ATTTGGAGCA	TCCAAAAGTA	ACTCAAGAAG	ATGTAGATTA	TCTACTTGGC	ATTGTCAACA	9000
ACCGCTTCCC	AGAATCCAAC	ATCACCATTG	ATGATATCGA	AAGCAGCTGG	GCAGGTCTTC	9060
GTCCATTGAT	TGCAGGGAAC	AGTGCCTCTG	ACTATAATGG	TGGAAATAAC	GGTACCATCA	9120
GTGATGAAAG	CTTTGACAAC	TTGATTGCGA	CTGTTGAATC	TTATCTCTCC	AAAGAAAAAA	9180
CACGTGAAGA	TGTTGAGTCT	GCTGTCAGCA	AGCTTGAAAG	TAGCACATCT	GAGAAACATT	9240
TGGATCCATC	TGCAGTTTCT	CGTGGGTCTA	GCTTGGACCG	TGATGACAAT	GGTCTCTTGA	9300
CTCTTGCTGG	TGGTAAAATC	ACAGACTACC	GTAAGATGGC	TGAAGGAGCT	ATGGAGCGCG	9360
TGGTTGACAT	CCTCAAAGCA	GAATTTGACC	GTAGCTTTAA	ATTGATCAAT	TCTAAAACCT	9420
ACCCTGTTTC	AGGTGGAGAA	TTGAACCCAG	CAAATGTGGA	TTCAGAAATC	GAAGCCTTTG	9480
CGCAACTTGG	AGTATCACGT	GGTTTGGATA	GCAAGGAAGC	TCACTATCTG	GCAAATCTTT	9540
ACGGTTCAAA	TGCACCGAAA	GTCTTTGCAC	TTGCTCACAG	CTTGAACAA	GCGCCAGGAC	9600



914

TCAGCTTGGC	AGATACTTTG	TCCCTTCACT	ATGCAATGCG	CAATGAGTTG	ACTCTTAGCC	9660
CAGTTGACTT	CCTTCTTCGT	CGTACCAATC	ACATGCTCTT	TATGCGTGAT	AGCTTGGATA	9720
GTATCGTTGA	GCCAATTTTG	GATGAAATGG	GACGATTCTA	TGACTGGACA	GAAGAAGAAA	9780
AAGCAACTTA	CCGTGCTGAT	GTCGAAGCAG	CTCTCGCTAA	CAACGATTTA	GCAGAATTAA	9840
AAAATTAAGA	AAAAATAAAA	GAGGTGGAGG	GCAGCATTCC	TTGTCGCCCC	TCCCTTCTTT	9900
TTAATGGAGA	CAGAAAGATG	ATGAATGAAT	TATTTGGAGA	ATTTCTAGGG	ACTTTAATCC	9960
TGATTCTTCT	AGGAAATGGT	GTTGTTGCAG	GTGTGGTTCT	TCCTAAAACC	AAGAGCAATA	10020
GCTCAGGTTG	GATTGTGATT	ACTATGGGTT	GGGGGATTGC	AGTTGCGGTT	GCAGTCTTTG	10080
TATCTGGCAA	GCTCAGTCCA	GCTTATTTAA	ACCCAGCTGT	GACCATCGGT	GTGGCCTTAA	10140
AAGGTGGTTT	GCCTTGGGCT	TCCGTTTTGC	CTTATATCTT	AGCCCAGTTC	GCAGGGGCCA	10200
TGCTGGGTCA	GATTTTGGTT	TGGTTGCAAT	TCAAACCTCA	CTATGAGGCA	GAAGAAAATG	10260
CAGGCAATAT	CCTGGCAACC	TTCAGTACTG	GACCAGCCAT	CAAGGATACT	GTATCAAAC	10320
TGATTAGCGA	AATCCTTGGA	ACTTTTGT	TGGTGTGAC	AATCTTTGCT	TTGGGTCTTT	10380
ACGACTTTCA	GGCAGGTATC	GGAACCTTTG	CAGTGGGAAC	TTTGATTGTC	GGTATCGGTC	10440
TATCACTAGG	TGGGACAACA	GGTTATGCCT	TGAACCCAGC	TCGTGACCTT	GGACCTCGTA	10500
TCATGCACAG	CATCTTGCCA	ATTCCAAACA	AGGGAGACGG	AGACTGGTCT	TACGCTTGGA	10560
TTCCTGTTGT	AGGCCCTGTT	ATCGGAGCAG	CCTTGGCAGT	GCTTGTATTC	TCACTTTTCT	10620
AGTTTATACT	CTTCGAAAAT	CAAATTCAAA	CCACGTCAGC	GTCGCCCTAC	CGTACTCAAG	10680
TACAGCTTGC	GGCTAGCTTC	CTAGTTTGCT	CTTTGATTTT	CATTGAGTAT	TAGAAAACAA	10740
TTATGTTGAT	AGAGCTTGGG	CAAGAGCCCA	ATTTACAGCA	AAAATGAAGT	AAATCTTCTC	10800
ATAATAAAAC	GCATCATATC	AAGCACGAAA	ATTCCACGAG	GTCAACTACA	GTCAGAAAGC	10860
TGAACAACAA	GCCAAAACGC	CCAAAAAAGG	CGGCAAAAAG	CAAGCACCTG	CAAGCAACGT	10920
GCCGAAATGG	TCAAATCCTG	ATTATGTCAA	CGAATTAGAC	CCAAAAATCG	TTGATATGCT	10980
AGTAGAATTT	CACAAGTCAC	AAGGCACTTT	GGAAACTCCC	GAGGCGCAAG	CAGAAATCGC	11040
CCAAAAACGT	GAAGAAATCG	AGCAAAGGAG	AGCTGAGCTT	GAGGGTAAAA	AACAAGAGCT	11100
TTTGAACCGC	TTGAACAAAT	AGAGTTTCGC	AAGTATTATG	CTTACAAATT	ACTTGAGCAA	11160
TTAACTAAAA	TATAAACCCCT	GCCTTTATAT	CTAGGCAGGG	TTTATATTTT	AGAAATTCAC	11220
GTAGGTTGTT	ACGGTTTTTA	CATACCCAGT	ATAGTTTGAG	TTTCTATAGT	ATTCAGTGAT	11280
AAACTTCCAT	TTTCTTTGAG	CAACATGGAT	ATAAGTACTT	GTTATGTAGT	ATGGATATGG	11340
GCTTTGTGAA	TCCAAGTAAG	ACTGATAAGC	TTGTATACCA	AAATATGCTC	CACCAATTAT	11400

915

TGCACCCCAT GGACCCCCCA ATAAAGCACC TATCCTACCA ATCATATAAC TGATTCCAGC 11460  
ACCAGTCATG AAGTTAGCGA ATGTGTTAGC TTGTTTATTC CCATGTATTG TGTTGACGTA 11520  
ATTCCAAACA TTAGGATCGT ATGATCTAAA AGATATATTT AGGTCGATTT CATTCCTTTG 11580  
ATAAGCCATA TAAAATGCCC CATTGATATA GACGCCGTCA GCACGTCGTT CAATAGTGTC 11640  
TACACTTCCA TCTGGATTGA CAACCTCAAG AACTTCATCG CTTAAAATAT TTACTTGCGT 11700  
ATCTCCGAAC CGCACTGATG AGCCATTCTC AAACCTGAGCC TCACCAGATA CAACTTTAGA 11760  
GTTTGCCGAT AAGCTATCAT CAGCAAAAAC AAACAAGCGA CGGGGAAATG CTAGACATAC 11820  
AGAAAACAGA CATAACTAGC AAACACATGC ATTTAAACAT CTTAGACATA ACGGAAACTC 11880  
CTTTGTATTT TTGATTTTTT TCAACTTTTA TTATACAATA AAACCAAATA AAAAGAAAGC 11940  
GGTAACAATA TGCTTAATGC GAAAATTTTT TATATATTTT TATGTTTGAT CGTTATCGAA 12000  
ACTACAGGCT TGTGTTGTTT GAAAAGAGGT CTCGAAATGG GTTATTTAGA CACAGAAGCT 12060  
ATTATCCTCG CAGTTTTTTC ATTTGCTTTT TACAACCTAT GTTCATTCGC TTGGGTCTGC 12120  
TCTACAATAA AAAACAATAA AAAATAAATA GACGTATTTT CAAAAAAAAC maAATGCATA 12180  
TTTATATTAG CAAAACGACG ATTTAAATCG TCGTTTTTTT GTAGTACGAC GGGCATGTGC 12240  
TATATCTGAG GTGTAAGTCC TCAGCCTGAC TATCGTGAGG TAGCAGGGAG AGGAAGGGAT 12300  
AGCGAAATCG TGGCTCTACG AACAGGAACG TGATAGTAAG GCGTATATAG CGGATAAGGA 12360  
GGCTTCAAAC TCTAAAGTCC AAAAAGGTAG TCGTAACCTA TATGTGTAAA TCACGAGAGT 12420  
AATTGAATTC GGACTAAGGT TTGTGTGAAA AAGATAAATC TTTCTAGAGT CTAAAGACTC 12480  
TGCGTCAGAT TTCCTATTTT CACTGTAACC TTTTAACGTC CTCATATCTT GTATAAACGA 12540  
GGAAAGATGT ACGACTTATC CCGTGAGGTT TCATGAGCGT GAAAGCGTAG TAACAACGAA 12600  
TCATGAGAAG TCAGCCGAGC CCATAGTAGT GAGGAACTT CCGTAATGGA AGTGGAGCGA 12660  
AGGGG 12665

(2) INFORMATION FOR SEQ ID NO: 135:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 5305 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 135:

CGCTAATCAC TACAATCATT TTATTGTACT TTTTCACTCT CAAGAAAAGC AAGAAGTATT 60

916

CATTTTAGTT	TCATTTAGTA	TTATTTTGCA	TACCTAAAAAT	ACAGTAAAAA	ATCAGTCATC	120
TTGGTATGCT	CCTGCTTTCA	CTATTCAACA	CGTTTTTGAC	TTATACTAGG	CTCATTTCCA	180
AAAGCATTAT	ATAATAGTGA	TATGAAACCA	ACTAAACTAA	ACAAGAAATA	TAAGCAATAA	240
AAATTCGTTT	AAAAGATCTT	ACTAAAGCTA	ATACTAAATA	AAAATAAAAAG	AGTAAACTAG	300
GAAGTTTATT	TCAAACAACC	TAAAATACTG	ATTTTCGGCT	GAAGATAATA	CTGGAGTGCA	360
AATTAATGGG	GTTATAATAA	ATAGCTGATA	GCTTGTGTTG	GTTTTGGATT	TTTTAAGAGT	420
AGATGAGTAT	TAAAACTATA	AGGAGGACGA	AGGTGGCTAA	AAATTTAAAA	TTAAAATTAG	480
CTCGGGTAGA	GCGTGATTTA	ACACAAGGTC	AACTGGCAGA	GGCTGTCGGG	GTGACACGCC	540
AGACTATTGG	TTTAATAGAG	GCGGGAAAAT	ACAATCCCAG	TCTCTCGCTC	TGCCAGTCTA	600
TTTGCAGATG	TTTAGGGAAA	ACCCTAGACC	AACTATTTTG	GGAGGAAGAA	GATGAAAAAT	660
AGATTTTATT	ATTCTCAATT	ACTAGACGAA	AGAGAAGAAC	AACTGTTCAA	TAAAGCGGGC	720
TCTGAAAGTT	TCTATATCTG	CATTGCTTTG	TCGCTCCTAT	CTTATATCAT	TTCAGTATTA	780
GCACCAAGCC	TTTTTAATTC	TAATATGCTG	CTAATCGTTA	TCATCATAGG	GACATTTTAC	840
TTTTTCAATC	GTGCCCCTTA	TCTGGGAGTG	ACCTACTATG	GTCGTTTTCA	TTTTACGATT	900
TTGGGTGTGTT	TTTTCCTAAC	CTTGGCTATT	ACGGCTCTTT	TGATGTTGCA	GAATTATCAA	960
TTCAACATAG	AAATTTATCA	GCACAATCCT	TTGAATTTTA	AATACCTGTC	TGCTTGGGTC	1020
ATTACTTATA	TCATTTACCT	TCCGTGGATC	TTTATTGGCA	ATCTTGGTCT	TAAGAGCTAT	1080
GGCGAATGGG	CTCAGAAAAA	ATTTGAACAA	GATATGGATG	AATTGGAGAG	TGGAGAATAG	1140
CTTGTTACTC	TTTTCTCAAT	CCAGCTAAAA	TGTGATATAA	TAGTACTAAT	TTATTGGAAT	1200
ACATGAAAGT	TCTTGAAAAT	TTTCATGGGT	TTCTAGCTAA	GGAAGTAGGA	AAAGTATGTA	1260
TCCAGATGAT	AGTTTGACAT	TGCACACGGA	CTTGTACCAG	ATCAACATGA	TGCAGGTTTA	1320
CTTTGACCAA	GGGATTCACA	ATAAGAAGGC	GGTCTTTGAG	GTGTATTTCC	GCCAACAGCC	1380
TTTTAAGAAC	GGCTATGCGG	TTTTTGCAGG	TTTAGAAAGA	ATTGTGAACT	ATCTTGAAGA	1440
CTTGCGTTTT	TCAGATAGTG	ATATAGCCTA	TTTGGAGTCG	CTTGGTTATC	ATGGGGCGTT	1500
CTTGGATTAC	CTTCGCAATT	TCAAGTTGGA	GTTGACCGTT	CGTTCTGCCC	AAGAAGGGGA	1560
TTTGGTTTTT	GCTAATGAAC	CGATTGTGCA	GGTGGAAAGGA	CCTCTAGCCC	AATGTCAGTT	1620
GGTCGAAACG	GCTCTTTTGA	ACATCGTCAA	CTACCAGACT	TTGGTGGCGA	CGAAGGCAGC	1680
TCGTATTCGT	TCGGTTATCG	AAGATGAACC	CTTGATGGAG	TTTGGGACAC	GTCGGGCTCA	1740
AGAAATGGAT	GCGGCCATCT	GGGGAACACG	CGCAGCTGTG	ATTGGTGGCG	CCAATGGAAC	1800
CAGCAACGTG	CGTGCGGGTA	AGCTCTTTGA	CATTCCTGTT	TTGGGAACCC	ATGCCCATGC	1860

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CTTGGTACAG	GTTTATGGCA	ATGACTATGA	AGCTTTCAAG	GCTTACGCTG	CGACCCACAA	1920
AAATTGTGTC	TTTCTTGTGG	ATACCTATGA	CACCCTTCGC	ATCGGTGTAC	CAGCTGCCAT	1980
TCAGGTGGCG	CGTGAGCTGG	GTGATCAGAT	TAACTTTATG	GGTGTGCGGA	TTGACTCTGG	2040
GGATATTGCC	TACATTTCTA	AGAAAGTCCG	TCAGCAACTG	GATGAGGCTG	GATTTACAGA	2100
GGCTAAGATT	TATGCTTCTA	ATGATCTAGA	TGAAAATACC	ATCCTTAACC	TCAAGATGCA	2160
AAAGGCCAAG	ATTGATGTCT	GGGGTGTGGG	TACCAAGCTG	ATTACAGCCT	ATGACCAGCC	2220
GGCTCTTGGG	GCGGTTTACA	AGATTGTTGC	AATCGAAGAT	GAAACTGGTC	AGATGCGCAA	2280
TACGATTAAG	CTGTCTAATA	ATGCTGAAAA	AGTTTCTACG	CCAGGTAAGA	AGCAGGTGTG	2340
GCGCATTACC	AGTCGTGAAA	AAGGCAAGTC	AGAAGGCGAC	TATATCACTT	ATGATGGTGT	2400
GGATATTAGC	GACATGACAG	AAATCAAGAT	GTTCCATCCG	ACCTATACAT	ACATCAAGAA	2460
GACGGTTCGT	AATTTTGATG	CCGTTCTCT	CTTGGTGGAT	ATCTTCAAAG	AAGGAATATT	2520
AGTTTACAAC	TTGCCTAGTT	TGACTGACAT	TCAGGATTAT	GCCCCGTAAGG	AATTTGACAA	2580
GTTGTGGGAT	GAGTATAAGC	GTGTGCTCAA	TCCGCAGCAC	TATCCAGTGG	ATTTGGCGCG	2640
TGATGTATGG	CAAGATAAGA	TGGACTTGAT	TGATAAGATG	CGCAAGGAAG	CCCTTGGTGA	2700
AGGAGAAGAA	GAATGAGTTT	GCAAGAAACG	ATTATCCAAG	AGCTGGGTGT	CAAACCAGTG	2760
ATTGATGCCC	AGGAAGAAAT	CCGTCGTTCT	ATTGATTTCT	TAAAAAGATA	TCTGAAAAAA	2820
CATCCCTTCC	TAAAAACCTT	TGTACTAGGG	ATTTCTGGGG	GACAAGACTC	AACCTTGGCA	2880
GGACGTTTGG	CGCAATTAGC	TATGGAAGAA	CTGCGAGCTG	AAACGGGAGA	CGATAGCTAC	2940
AAATTTATCG	CTGTCCGCCT	GCCATACGGA	GTGCAAGCTG	ATGAAGCAGA	TGCTCAAAAA	3000
GCCCTAGCCT	TCATCCAGCC	AGATGTCAGC	TTGGTTGTGA	ATATCAAGGA	ATCAGCTGAT	3060
GCCATGACAG	CTGCAGTTGA	AGCGACAGGT	AGTCCTGTTT	CAGACTTCAA	CAAGGGGAAT	3120
ATCAAGGCAC	GTTGCCGTAT	GATTGCTCAG	TATGCCCTTG	CTGGTTCCCA	TAGCGGAGCG	3180
GTCATTGGAA	CAGACCACGC	CGCGGAAAAT	ATCACAGGTT	TCTTTACCAA	GTTTGGTGAC	3240
GGCGGTGCGG	ATATTCTCCC	TCTTTACCGC	CTCAATAAAC	GCCAAGGAAA	ACAGCTCTTG	3300
CAGAAACTTG	GCGCAGAGCC	AGCCCTTTAT	GAAAAAATCC	CAACGGCAGA	CCTAGAAGAA	3360
GATAAACCAG	GCCTAGCTGA	CGAAGTCGCA	CTTGGAGTCA	CCTACGCAGA	GATTGACGAC	3420
TACCTAGAAG	GCAAAACAAT	CAGCCCAGAA	GCTCAAGCGA	CCATTGAAAA	CTGGTGGCAC	3480
AAAGGCCAAC	ACAAACGCCA	CTTACCCATC	ACCGTATTTG	ATGACTTTTG	GGAGTAAAAA	3540
GGTCCGGGGG	ACCTTTTATG	CTTCTTGCCC	TGAAATTAAA	AAGCAAGAAA	AACCTCCACT	3600



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GGAGGTTTTTC	AGCCTCTCAT	CTTGAAATAA	GAAAGTGAGA	GAAGGTCTGG	GGGATCTTGA	3660
ACCCCGAGTT	TAGAAATAAG	AAAATGAGGC	AGATTCAGTA	ACTCGAAGAG	TTCGATTTCA	3720
TCGTCTTACC	CCTGCAACGA	TGACTAGGTT	TGAAAAAGCT	TGCTAGAGCG	CATTTCAAAC	3780
CAGGCAGCAA	CTGCGTCAAG	AAATTAGAAG	ACAAACTCGT	TTTCTAGCTG	TTACTGAGTT	3840
GAGCCTTTTT	ACTACGAGTA	TAGAAATAAG	GAAGTGAGGT	AGCATCATGA	AATCTATCGG	3900
TACGCAAATA	TTACAGACAG	AACGTTTGAT	TTTAAGAAGA	TTTGTGGAGA	GTGATGCAGA	3960
AGCCATGTTT	CAAAATTGGG	CTTCATCCGC	TGAGAATCTG	ACCTATGTTA	CCTGGGATCC	4020
CCATCCTGAT	GTCGAAATCA	CTCGAAACTC	GATTTGCAAT	TGGGTGCTT	CCTATACTAA	4080
TCTCAACTAT	TATAAATGGG	CCATTTGTCT	AAAAGAAAAC	CCAGAGCAAG	TAATAGGAGA	4140
TATCAGCATT	GTTAAGATAG	ACGAGGCTGA	TTTAAGCTGT	GAAATTGGCT	ATGTGTTAGG	4200
CAAGGCTTAC	TGGGGAAATG	GTATGATGAC	AGAGACTTTG	AAAGCTATCT	TGGACTTTTG	4260
TTTTACTCAA	GCAGGTTTTC	AAAAGGTCAG	AGCACGTTAT	GCCAGTCTCA	ACCCAGCTTC	4320
AGGTCGTGTC	ATGGAAAAGG	CTGGAATGTC	CTATCTACAA	ACCATTGTTA	ATGGTGTAGA	4380
GAGAAAAGGC	TATCTTGCGG	ATCTTATTTA	TTATGGTATA	AGTAGGGAAG	AATGTTGAAT	4440
TCTATTTTCT	GTTTCTATCG	AAGTCAACTA	TTTATTGTAA	ATATAATAAT	TAGCATTCCA	4500
AGTTTATTTG	AAACTTTAAA	ATAGCATATT	GATTAGTACA	AGACAGATGT	TCTAGTTCCT	4560
TCTTTAATCT	GGTTTAGTGT	TAGTTAAAAA	ATCGCTTTAA	GCTTGTAACT	AAGAGGGAGC	4620
TAATCGACTA	GATTCCTCCAG	CCGAACAGGI	GGTAATGTAC	TTTTTATAGT	GTAATCCTAG	4680
CTGTTGTTAA	ATTTAAAATA	GAATCCTCTA	TCGAGTTAGG	GAATTAAATT	CAACCAATTT	4740
TATTCATGTT	TTTTCTATCA	AATTATCTAA	TATTTAAAATA	GTCTCATTCT	GATGAGAAAA	4800
CTATTCCCAA	ATCATTCATA	CCTCTCTCAA	CTAGATGTAA	CTTACAAAAC	CCCTGACCTC	4860
ATGAGCCACT	TTCTTCCTCC	TCATGAGGTC	AGTTTTACTT	TCTGCTGTTC	CAGTATCGTT	4920
TTTCCTCGCT	AGATTTCCCTC	AAAAGGGCAG	ACTCCTCCCT	TGGTGCGTCA	CACGATTTTT	4980
TCATCTCGAC	TGTTCTTTAA	TGCATCATTA	ACGACGCTTT	TCTTCTAGGT	GGTTCATAAG	5040
GAACAGGAAG	ATTCAGGTTG	ACTTTTCTAA	TCCTAGAATA	AAGTGCTGAA	AACAATTTCGG	5100
AATAGGCATA	GAGACTAGAC	AATTTGAGGA	GCTGCTTGCG	TCCTGTTTGA	ACACATTTTC	5160
CCACCACGTG	AAGAAAAAGA	TGGCGGAAGC	GTTTGATTGT	TAAAGTTTGG	AAGTCACCTC	5220
CAGCTAGATG	TTTGAGAAAA	AGATAGAGAT	TGTAGGCGAT	ACAGCTCATC	ATCATACGAA	5280
CTTCGTTTTT	GATTAAGGTT	GAACT				5305

(2) INFORMATION FOR SEQ ID NO: 136:

919

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 3964 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 136:

TGGCAGCTCG TCGTCGTAAA GGACGCAAAG TTTTGGCTGC ATAATCCAAA CGAATTCTAT	60
CAAAAATCAG TAGGAACTCG AGTCTACTGA TTTTATTTT TGTA AAAAAG TTCAGTAGAT	120
GCAAATGGAT TCGGAAGCGA TGTTACAGTA GATTGAACT AGAATAGTAC ACCTCTGTTT	180
CTAAACATT GTTAGAAATC GATTTGACTG TCCTGATCGA TTTGTCCTGT TATTATTTTA	240
TTTTACTATA AAGTTGAAGT AGGTGGAGAT GGTACAGCAA CAATCGTCTT TAAAGATGGT	300
TCAGCTATTA CAATTCCAGG AAATCAATTG GTAGCACAAG ATCCAAAAGC ACAAGATAGC	360
ACTAAACTGA CTGCTGAAAA ATCAACTGTT AAAGCACCTG CTCAAAGAGT AGATGTAAAA	420
GATATAACTC ATTTAACAGA TGAAGAAAA GTTAAGGTTG CTATTTTACA AGCAAATGGT	480
TCAGCATTAG ACGGAGCGAC AATCAATGTA GCTGGAGATG GTACAGCAAC AATCACATTC	540
CCAGATGGTT CAGTAGTGAC GATTCTAGGA AAAGATACAG TTCAACAATC TGCGAAAGGT	600
GAATCTGTAA CTCAAGAAGC TACACCAGAG TATAAGCTAG AAAATACACC AGGTGGAGAT	660
AAGGGAGGCA ATACTGGAAG CTCAGATGCT AATGCGAATG AAGGCGGTGG TAGCCAGGCG	720
GGTGGATCAG CTCACACAGG TTCACAAAAC TCAGCTCAAT CACAAGCTTC TAAGCAATTA	780
GCTACTGAAA AAGAATCAGC TAAAAATGCC ATTGAAAAAG CAGCCAAGGA CAAGCAGGAT	840
GAAATCAAAG GCGCACCGCT TTCTGATAAA GAAAAAGCAG AACTTTTAGC AAGAGTGGAA	900
GCAGAAAAAC AAGCAGCTCT CAAAGAGATT GAAAATGCGA AACTATGGA AGATGTGAAG	960
GAAGCAGAAA CGATTGGAGT GCAAGCCATT GCCATGGTTA CAGTTCCTAA GAGACCAGTG	1020
GCTCCTAATG CTGCTCCTAA GACAACAAGT GCACCGCAAG CAACTGCAGG AACAATGCAA	1080
GATGTTACCT ACCAGTCACC TGCTGGCAAA CAATTACCTA ACACAGGTTC AGCATCAAGT	1140
GCAGCACTTG CTAGTCTTGG TCTAGTGGTG GCAACAAGTG GTTTTGCTTT GCTAGGAAGA	1200
AAGACTAGAC GTAGAAAATA GAACAGCTAG AAAATTCTAT TCTCTACTTA AAGTTAGATT	1260
ATAAGGGGGA TTTTGAGAAG TCATCAATCC TAGTGATGGG TGAGAAAAGT GAGAACCCAA	1320
GATAATCACA TACTTTAGCT GAATAGGAAT ATTCTATCAA TGTAGCCAAT CTCTTCTGTC	1380
TCTAACTGTG GAATAGGAGA TGGGCAATAT CGGATAGAAA AGATAGCAGA ATAGCTCTCT	1440

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ATTGAAGAGA	GGAGGGGAAA	CCGAAAAATT	AGGTGCCCCCT	CCTCTTTTTTT	GGTATAATAG	1500
AAGATAGAAA	ACGAGGTTAG	AAGAGATGAT	TTTTGATACA	CATACACACT	TGAATGTAGA	1560
AGAATTTGCA	GGTCGTGAGG	CAGAAGAAAT	TGCCTTGGCT	GCTGAGATGG	GTGTGACACA	1620
GATGAATATT	GTTGGTTTTG	ATAAACCGAC	GATTGAGCAT	GCCTTGGAGT	TGGTAGATGA	1680
GTATGAGCAG	CTCTATGCGA	CTATTGGTTG	GCATCCTACA	GAAGCTGGTA	CTTATACAGA	1740
GGAAGTTGAG	GCTTACTTGT	TGGATAAGTT	AAAACATTCC	AAGGTTGTGG	CTTTAGGTGA	1800
AATTGGCTTA	GATTACCATT	GGATGACAGC	GCCCAAAGAG	GTGCAGGAGC	AGGTTTTTCG	1860
CCGTCAGATT	CAGCTATCTA	AGGACTTGGA	TTTGCCTTTT	GTTGTCCATA	CCCGTGATGC	1920
GCTGGAAGAT	ACCTATGAGA	TTATCAAGAG	TGAGGGCGTT	GGTCCTCGTG	GTGGTATCAT	1980
GCATTCATTT	TCAGGGACGC	TTGAGTGGGC	AGAGAAGTTT	GTGGATCTTG	GTATGACCAT	2040
TTCTTCTCA	GGAGTGGTGA	CTTTTAAGAA	GGCAACTGAC	CTCCAAGAAG	CAGCTAAAGA	2100
GTTACCTTTG	GACAAGATGT	TGGTGGAAC	AGATGCGCCT	TACTTAGCAC	CTGTACCCAA	2160
GCGTGGTCGT	GAAAATAAAA	CAGCCTATAC	TCGCTATGTG	GTCGACTTTA	TCGCTGACTT	2220
GCGTGGTATG	ACGACAGAAG	AGCTGGCGGT	AGCAACGACT	GCAAATGCAG	AACGAATTTT	2280
TGGACTGGAC	AGCAAGTAAT	GAAAGAGAAA	ATTTCTCAAG	TTATCGTGGT	TGAAGGGCGT	2340
GATGATACGG	TCAATCTCAA	ACGTTATTTT	GATGTGGAGA	CCTATGAGAC	TCGAGGTTCT	2400
GCCATCAATG	CTCAGGATAT	AGAGCGGATT	CAGCGCCTGC	ACCAACGTCA	TGGAGTCATT	2460
GTCTTTACAG	ACCCAGATTT	TAATGGGGAA	CGGATTCGGC	GCATGATCAT	GATGGTCATT	2520
CCAACAGTTC	AGCATGCCTT	TCTCAAGCGA	GATGAAGCTG	TTCCCAAGTC	CAAGACCAAG	2580
GGGCGTTCTC	TGGGAATTGA	GCATGCCAGC	TATGAAGACC	TGAAAACGGC	TCTAGCTCAA	2640
GTGACAGAAC	AATTTGAACA	TGAGAGTCAG	TTTGACATTA	GTCGTAGCGA	TTTGATTTCGC	2700
CTTGGTTTTT	TAGCAGGGGC	AGACAGCCGT	AAGCGTAGAG	AATATCTCGG	AGAGACTCTC	2760
CGAATCGGCT	ATTCCAACGG	CAAGCAACTC	CTCAAACGCC	TAGAGTTGTT	TGGGGTACT	2820
TTGGCAGAAG	TGGAAGAAGC	TATGAAATCT	TATGAGTAGG	AAAGATGTAG	CCGTTACAAT	2880
TTTTTAAGTT	TCACAGTATT	TTTCGAAGCA	GGTAGAAGAG	GAGGCGTCTG	ATGTTAATTG	2940
GTCAAAAAAT	TAAAGAGATT	CGGATAGAAA	AAGGAATTAG	TCGTCCAGAT	TTTTGTGGAG	3000
ATGAGCAAGA	ACTGACAGTT	CGTCAACTGT	CGCGAATTGA	AAGTGGAGCT	TCGCAACCGA	3060
GTTTGCCCCA	GTTAGACTAT	ATTGCTCGCC	GGCTAGGAGT	TCCAGTTTAT	AGCCTTATGC	3120
CGGATTTTTT	AGCTCTTCCT	TCTGCTTATT	TAGAATTGAA	ATACCAGATT	TTACGTGAAC	3180
CAATCTATGG	TAAAGAAGAG	GAGTACGATA	AGAAGGAAGC	GTGTTTGGA	GAGATTTATA	3240

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AAACATACTT TGATAATCTT CCTAAAGAAG AACAAATTAGC ATGTGAAGTA TTGCAGGCGT	3300
GTTTGGATAC TTCTAGAACT AGAAGGCCTG AATATGCAGA GTTAATACTT GAGGAACATA	3360
TGCCTCAGAT TATAGAAAAA GAAGCTTATT CAATAAATGA TATGTTGTTG ATTCGTTTGT	3420
TTTTTTATCA AATGCTCATT AGAAAAGATC TTGCCAAATT TATAAATCAA ATCGAAAAGC	3480
TAATGCTCTT TCTTTTGGAA CAGAAGAAGG TAACTCAAAT AGAGAATTAC TTTATAATTA	3540
GAGATACTCT TATTTTCAGGA ATGTGTTGTC TTGAAAAGGT AGGAGTAACT GATTGTTTTA	3600
ATGATTATCT ATCGTGTTTA CAAGAAATTA TGGATAAAAC TCAAGATTAT CAAAAGAAAC	3660
CTCTTGATTT TATGTTTTTTG TGGAAGCAAG CATTAAGAGA AGAAAGAGAT TTTAGTTTAG	3720
CTGAATCATT TTATCAGTCT TCTAAAACAT TTGCGCAGCT AATTGGAGAT GAATTTCTAG	3780
TAAAGAAATT GACAGAGGAA TGGCAAGAGG ATGTCAAAAA ATATTTATAA ACATAGTGAA	3840
TCAGTGACAA AGATGTCCTT GTCCTCGTAT CAAAACAGTT CTAAAGTTCG TCTTTAGGGA	3900
TGTTTTTTTA GATATAAGCT AAAAATGACA CGAAATGGTT AGATTTTAAG GACATTGATG	3960
TCCG	3964

(2) INFORMATION FOR SEQ ID NO: 137:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12666 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 137:

TGAGACCGTT ATTTGTATTA GGGAAATGGG TATCTATTTT TAATGCTGTG GGGATTTTGA	60
TTGTTTCTAT TATCAAACC AAAAGCTTGT CAGGTATTGG AGCAGGATTG TTTAATCTAT	120
ATAACATTTT ATCTTATATA GGTGATTTAG TTAGTTTCAC TCGATTGATG GCATTAGGAT	180
TATCTGGAGC AAGTATAGCA TCAGCTTTCA ATTTAATTGT TGGTTTGTTT CCGGGAATAT	240
TGGCTAAACT GACAATTGGA TTAGTATTAT TCATTCTTTT ACATGCGATC AATATTTTTC	300
TATCGTTACT ATCAGGATAT GTTCATGGAG CACGTCTGAT ATTTGTTGAA TTTTTTGGTA	360
AGTTTTATGA GGGTGGAGGA AAACCATTTT AACCTTTGAA GGCTTCTGAG AAATATATTA	420
AGGTTATTAC AAAGAATTAA TGGAGGATAT ATATAATGGA ACATTTAGCA ACTTATTTTT	480
CAACCTATGG AGGAGCTTTC TTCGCTGCAT TGGGAATTGT ATTGGCGGTT GGATTAAGCG	540
GTATGGGGTC TGCTTATGGA GTTGGTAAGG CTGGGCAATC TGCCGCAGCT TTAAGTAAAG	600



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AACAGCCTGA	AAAGTTTGCC	TCAGCTTTGA	TATTGCAATT	ATTGCCCGGA	ACACAAGGAT	660
TATATGGTTT	TGTTATTGGA	ATTTTAATTT	GGTTGCAATT	AACTCCAGAA	CTTCCTTTAG	720
AAAAAGGCGT	TGCTTATTTT	TTTGTAGCTC	TTCCAATTGC	TATTGTAGGA	TACTTTTCAG	780
CTAAGCATCA	AGGAAATGTA	GCAGTAGCGG	GAATGCAAAT	CTTGGCTAAA	AGACCAAAAAG	840
AATTCATGAA	GGGAGCAATT	TTAGCTGCCA	TGGTAGAAAC	CTATGCAATT	CTTGCTTTTG	900
TCGTATCATT	CATTTTGACC	CTTCGTGTAT	AAGAAATAAA	TTTGCAATTC	AAAGGAGGTG	960
TCTAAATGAG	CAATTTAGAA	AACTTACGAG	AGTCTGTTAT	TGAACAAGCT	CATGAAAAAG	1020
GGCGTATGAA	ATTATTGGAT	TCCAAAAAGA	AGATTGATGA	TGAATTTGAA	ATGCAAAAAGT	1080
CGCTCATTAT	AAAGAAAAAA	GAAGCTGAAC	ATGAACGAAA	GTTAAAAGAA	TTGCAACAGA	1140
AATATCAAAT	AATTTTTCAA	CAATTAAAAA	ATAAGGAACG	CCAATCAACG	TTAGTATCAA	1200
AACAGAAAAT	ATTAAAAGAA	CTTTTTCAAT	CTGCTTTACT	AGAAATGGAA	TCTTGGAGTG	1260
CAGATAAAGA	AATGGAGTTC	ATCTATCGAA	TTCTGGAACG	ATATTCACAA	CAAGAGGTCA	1320
TAGTAACCTT	TGGGGAACGG	ACTTTAGCTA	AATTCAATTT	GGAACAATTA	GAGAAATTGA	1380
AATTCTCTTT	TCCAAATTAT	TTATTTAGTG	AACAACCTAT	CTCAAATGAA	TCAGGCTTAC	1440
TTATTTCAAT	AGGTAAAATT	GATGATAACT	ATTTGTATAA	AACATTAATT	GGATCGATTT	1500
CTAAGGAAGA	AAGTTCAAGT	ATCGCAAATC	AAATTTTTAT	CAATTAAGGA	TGAAATTGGT	1560
TAATCCTTCT	TAGAAATTTG	GAGTATTCCA	ATAAAATTAG	AAAGGTATTT	TATGGATACT	1620
AATCTTTTTT	CAAAAATAAA	TACGACGATT	TCGGTAAAAG	AAAACGATTT	TATTACAGAA	1680
GAAAAATTTT	AAAAAATTAT	ACAATCCAAA	GATACGGAGA	CATTGGCATT	TATCTTAGAA	1740
TCAACTCCCT	ATCATTTATC	GATTGACATC	TTAGAAGATC	CTAGTCAGAC	AGAGATTTTCG	1800
CTAATGACAA	AATTAGTCAA	TGATTATAGA	TGGGCCTATG	CTGAAAGTCC	GTCTGATATA	1860
ATTGTGACTT	TATTTGCTTT	ACGATATGTT	TATCATAATA	TCAAAGTTTT	ATTAAAATCT	1920
AAGGCGGCAA	TTAAGAAAGA	TTTTTCTAAA	TTATTAATTC	CAATAGGGAT	TTTTGATATA	1980
GAAAGTTTAA	AACATTTAGT	TTCTTCCTTA	CATTCAGATA	CACTTCCTGA	TTTTATGGTT	2040
CGTGAAGTAG	AATCAATTTG	GAATGAGTAT	GAACTTTTAA	ATAATATTCG	TGTACTTGAT	2100
GTCGGAGCTG	ATCTAGCATA	TTTTAAACAT	CTGAACTTTT	TATCTAATGA	GTTAGATGAG	2160
GTACTGTCTC	AGGTATTGTG	CGAAATGATT	GACTTTTATA	ATATTATTAC	TGTAAAACGT	2220
GGTTTATCTC	AAAATAAGAG	TCATGGGGAT	ATTTTACAAT	TACTTTCAGA	TGAAGGAAGT	2280
ATTTCTGCTA	AAGAATTTAT	ATACATTGTA	GAAAATCAAG	AAATATTTGT	GTGGTTCAAT	2340
AAAATAAATC	CAAGCTTAGA	TTCAATCTTT	TCAACTTATG	AATTGAAGAT	GCAGGACGCA	2400

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ACAATTTTCAT	CTTCTGAGTT	AGAATTTTTTA	TGTGATTTAC	TATTGTATAA	AACTTTAGAT	2460
CAAGGAAGGT	ACAATGTAGA	GGGGCCGTTA	GTTCTTGCTA	GATATTTATT	GGGATGTGAG	2520
TTTGAAGTAA	AGAATCTCAG	AATGATCATA	TCAGCTCTTC	AAAATACAAT	TCCCTTTGAA	2580
TCAATAAAAG	AAAGGATACG	CCCACATTAT	GGAAGCTAAT	AAGTATAAAA	TTGGCATAAT	2640
TGGTAGCCGT	GATATTATTT	TACCATTTAG	CATGATTGGG	TTTGATATAT	TTCCTGCCTA	2700
CCAAGAACAA	GAAGCTATAA	ATACACTAAG	AAAATTAGCT	CAATCTGATT	ATGGTGTCAT	2760
TTATATCACT	GAAGACATTG	CTTCAATGAT	ATTAGATACA	ATTCGCCATT	ATGATTCCCA	2820
AGTTGTGCCT	GCTATTATTT	TATTACCGAC	TCATAAACAA	GGTTTAAATT	TAGGATTAAA	2880
ACGTATAGAG	GATAATGTAG	AGAAAGCAGT	AGGACACAAT	ATTTTATAAT	AATGTACAAA	2940
ATTGTCTGTA	ATATTATTCT	ATAATTTTTG	GACTTAGTAA	GGAGAATAAC	TTTGACTION	3000
GGGAAGATTA	TAAAAGTATC	GGGACCTCTA	GTTATTGCAT	CAGGTATGCA	GGAGGCTAAT	3060
ATTCAAGATA	TTTGCCGTGT	AGGTAAGCTA	GGGTTAATCG	GTGAAATTAT	TGAAATGAGA	3120
AGAGATCAGG	CATCTATCCA	AGTCTATGAA	GAAACATCTG	GTCTTGGTCC	GGGAGAACCT	3180
GTTGTTACAA	CTGGAGAACC	TCTCTCGGTT	GAATTAGGGC	CAGGATTGAT	TTCTCAAATG	3240
TTTGATGGCA	TACAACGCCC	ATTAGATCGA	TTTAAATTGG	CTACTCATAA	TGATTTTCTA	3300
GTTCGTGGGG	TAGAAGTTCC	AAGTTTGGAT	AGAGATATTA	AGTGGCATT	TGATTCCACT	3360
ATAGCAATTG	GTCAAAAAGT	GAGTACGGGT	GATATTCTTG	GAACTGTCAA	GGAAACCGAG	3420
GTAGTTAATC	ATAAAATTAT	GGTTCCTTAT	GGAGTATCTG	GAGAAGTCGT	TTCTATTGCA	3480
TCTGGCGATT	TTACAATTGA	TGAAGTTGTA	TATGAAATAA	AAAAATTGGA	CGGTAGTTTC	3540
TATAAAGGAA	CGCTTATGCA	AAAATGGCCT	GTCCGCAAGG	CGCGTCCTGT	TTCTAAACGT	3600
TTAATTCCAG	AAGAACCATT	AATCACAGGT	CAACGAGTTA	TTGATGCATT	CTTTCCAGTA	3660
ACCAAAGGGG	GAGCTGCAGC	AGTTCCTGGA	CCGTTTGGAG	CAGGAAAGAC	AGTTGTACAA	3720
CACCAAGTAG	CTAAATTTGC	CAATGTTGAT	ATTGTTATTT	ATGTCGGTTG	TGGAGAACGT	3780
GGAAATGAAA	TGACGGATGT	ACTGAATGAG	TTTCCTGAGT	TGATTGACCC	TAATACCGGA	3840
CAATCAATTA	TGCAACGGAC	AGTTCTGATT	GCTAATACTT	CAAATATGCC	TGTTGCTGCT	3900
CGTGAGGCTT	CAATTTATAC	AGGAATTACC	ATGGCTGAGT	ATTTTCGTGA	TATGGGCTAC	3960
TCTGTCGCCA	TTATGGCTGA	TTCAACTTCA	CGTTGGGCAG	AAGCGCTACG	TGAAATGTCA	4020
GGACGTCTAG	AAGAAATGCC	TGGTGATGAG	GGTTATCCTG	CTTATCTGGG	AAGTCGTATC	4080
GCTGAATATT	ATGAAAGAGC	AGGACGTTCT	CAGGTTCTAG	GGCTTCCAGA	ACGTGAAGGA	4140

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ACGATTACTG	CTATTGGAGC	TGTATCGCCA	CCTGGTGGAG	ATATTTTCAGA	ACCAGTTACT	4200
CAAAACACTT	TACGGATTGT	GAAAGTTTTT	TGGGGGCTTG	ATGCTCCGTT	GGCACAGCGA	4260
CGTCATTTTC	CTGCAATTAA	CTGGCTTACA	TCTTATTCAC	TATATAAAGA	CAGTGTGGGC	4320
ACTTATATAG	ATGGTAAAGA	GAAGACAGAT	TGGAATAGTA	AAATAACTCG	TGCGATGAAC	4380
TACTTACAAC	GGGAATCTAG	TTTAGAGGAA	ATTGTTTCGT	TTGTTGGAAT	TGATTCTCTG	4440
TCTGATAATG	AACGACTAAC	GATGGAAATT	GCTAAACAAA	TTCGAGAAGA	TTATTTGCAA	4500
CAGAACGCTT	TTGATTCGGT	AGATACATTC	ACTTCGTTTG	CAAAACAAGA	AGCAATGCTA	4560
AGTAATATTC	TCACTTTTGC	TGATCAGGCA	AATCATGCTT	TAGAGTTGGG	TTCTTACTTT	4620
ACAGAGATTA	TGGAAGGTAC	CGTGGCAGTT	CGAGACCGTA	TGGCGAGAAG	TAAATATGTT	4680
TCAGAAGATA	GATTAGATGA	AATCAAAATT	ATATCAAAATG	AGATTACACA	TCAAATTCAT	4740
TTGATATTAG	AAACAGGAGG	TCTATAAATG	AGTGTATATA	AAGAATACAG	AACTGCTAGT	4800
GAAGTTGTTG	GGCCTCTTAT	GATTGTTGAA	CAAGTAAATA	ATGTGTCTTA	CAATGAGTTA	4860
GTTGAAATTC	AACTTCATAA	TGGAGAAATT	CGTCGTGGAC	AAGTTTTAGA	GATCCACGAA	4920
GATAAAGCAA	TGGTTCAGCT	TTTTGAAGGA	TCTAGTGGAA	TAAATTTAGA	AAAGTCTAAA	4980
ATTCGTTTTG	CTGGTCATGC	ATTAGAATTG	GCTGTATCTG	AGGATATGGT	TGGTCGTATT	5040
TTTAATGGGA	TGGGAAAACC	AATTGATGGT	GGACCAGATT	TAATTCCAGA	GAAATATTTA	5100
GATATTGATG	GTCAAGCTAT	TAATCCTGTA	TCTAGAGATT	ATCCAGATGA	ATTTATTCAG	5160
ACAGGGATCT	CCTCTATTGA	TCATTTGAAT	ACTCTTGTA	GTGGTCAAAA	ATTACCAGTA	5220
TTTTTCAGGT	CGGGCTTACC	TCATAATGAA	TTAGCTGCTC	AGATAGCAAG	ACAAGCGACT	5280
GTTTTAAATT	CTGATGAAAA	TTTTGCGGTT	GTATTTGCAG	CAATGGGTAT	TACTTTTGAA	5340
GAAGCTGAGT	TTTTTATGGA	AGAACTCAGA	AAAACAGGAG	CGATCGATCG	TTCGGTTTTA	5400
TTTATGAACT	TGGCAAATGA	TCCTGCAATT	GAGCGTATTG	CAACTCCCCG	CATTGCTTTA	5460
ACTGCGGCAG	AGTATCTAGC	TTTTGAAAAA	GATATGCACG	TTCTAGTTAT	CATGACGGAT	5520
ATGACTAACT	ATTGTGAAGC	GTTACGTGAA	GTCTCGGCAG	CTCGCCGTGA	AGTTCCAGGG	5580
AGACGAGGCT	ATCCGGGATA	TTTATATACA	AATTTATCAA	CTCTATACGA	AAGGGCTGGT	5640
CGCTTAGTTG	GTAAAAAAGG	TTCGGTGACA	CAGATTCCTA	TTTTAACAAT	GCCAGAAGAT	5700
GACATAACAC	ATCCAATTCC	TGATTTAACT	GGATACATTA	CTGAAGGGCA	AATTATTTTG	5760
TCGCATGAGT	TGTATAATCA	AGGTTATCGT	CCACCAATCA	ATGTTTTACC	TTCTCTCTCT	5820
CGATTAAAAG	ATAAGGGATC	TGGAGAAGGT	AAAACTCGTG	GAGATCATGC	TCCAACATATG	5880
AATCAACTGT	TTGCAGCCTA	TGCCCAAGGG	AAAAAGGTTG	AAGAGTTAGC	AGTAGTATTA	5940

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GGAGAATCGG	CTTTATCTGA	TGTAGATAAA	TTGTATGTGA	GGTTTACAAA	GCGTTTGTAA	6000
GAAGAGTACA	TAAACCAAGG	ATTTTATAAA	AATCGAAATA	TAGAAGATAC	GTTGAATCTT	6060
GGGTGGGAAT	TACTATCAAT	TCTTCCTAGA	ACAGAGTTAA	AACGTATCAA	AGATGATTTG	6120
CTTGATAAAT	ACTTACCTTT	GGTAGAAGTT	TAATCCGGAA	ATGGAGTGAT	TATCTATGGT	6180
ACGTTTGAAT	GTAAAACCAA	CTCGTATGGA	ATTGAATAAC	TTAAAGGAAC	GTTTGACAAC	6240
AGCTGAACGT	GGACATAAGT	TATTAAAGGA	TAAAAGAGAT	GAATTGATGA	GGCGATTTAT	6300
TTCTTTGATT	CGTGAGAATA	ATCAACTTCG	GAAAGAAGTG	GAAAGTTATC	TAATTGATAA	6360
TCTAAAATCC	TTTGCAGTTG	CTAAATCATT	AAAGAATTCT	CAAATGGTGG	AGGAATTATT	6420
TTCAATTCCA	TCGAAAGAAA	TTGAATTATT	TGTTGAGAAA	GAAAATATCA	TGAGTGTAAC	6480
AGTTCCTAGA	ATGCATATGA	ATATTACTTC	TCAAATGAG	AACAGTGAAT	ACAGCTATTT	6540
ATCTTCTAAT	AGTGAAATGG	ATGATGTATT	TGCTACAATG	AATAGTTTAA	TTTATAAATT	6600
ACTAAGACTG	GCAGAAGTTG	AAAAAACGTG	TCAGTTAATG	GCTGATGAAA	TAGAAAAAAC	6660
ACGTAGACGT	GTAAATGGTT	TAGAATACTC	GATTATTCCA	AACTTGTCGG	AACTATTCA	6720
TTATATAGAA	TTGAAACTAG	AGGAGGCAGA	AAGAGCCAAT	TTAGTTCGTA	TTATGAAAGT	6780
GAAGTAGATC	CTTTATTTAG	ATTATTAATT	AGATGAACAA	ATATCAGCTT	GGATAAGGCT	6840
TTAAGCCTTT	CTAAGCTTTT	TTTATTGACA	GTATCAGGAT	ATCTTTTTCA	AAATTTTGGT	6900
TTGTTAGATA	ATGAAAATGT	TTCTACTAAT	CTAGATTTAG	GATTAGTAAA	TCGTAAATGT	6960
AATTATATAG	AAAGTAAGCG	CGTCATAACA	AGGTATCTAT	CATTCATGGA	GCTCCTCCTG	7020
TATACTATTA	GTAAAGTAAA	ACTATTGGAG	GATATTTTAA	TGCCACAACC	TATTGTTTCCT	7080
GTAGAGATTC	CACAATCTCG	TCGTTTTGAT	TCTAAAAGA	GAAATGATAT	TCTGCTTAAA	7140
ATTCGTATTG	GCAAGCTTGA	AGTAAGTTTT	TTTCAATCTC	TCAATCTCGA	AATGGTAGAA	7200
CAGCTTTTGG	ATAAGGTGTT	GCTCTATGAC	AATTCATCTA	TCTAGCCTAG	GGGAGGTCTA	7260
TCTCGTGTGT	GGGAAAAC TG	ATATGAGACA	AGGAATCGAT	TCACTGGCTT	ATCTGGTTAA	7320
AACCCACTTT	GAATTGGATC	CTTCTCCGG	TCAAGTCTTT	CTCTTTTGTG	GTGGACGTAA	7380
AGACCGCTTT	AAAGTCCTTT	ACTGGGATGG	TCAAGGATTT	TGGCTACTAT	ATAAACGCTT	7440
TGAGAACGGC	AGATTGATTT	GGCTAAGTAC	AGAAAAGGAT	GTCAAAGCTC	TCACACCAGA	7500
ACAAGTAGAC	TGGCTTATGA	AGGGCTTTTC	TATCACTCCA	AAAATATAGT	AGATTGAAAC	7560
TAGAATAGTA	CACCTCTGCT	TCTAAAACAT	TGTTAGAAAT	CGATTTTACT	GTCCTGATCG	7620
ATTTGTCCTG	TTCTTATTTT	ATTTTACTAT	AAATCCATCA	GAAAGTCGTG	ATTTCTATTG	7680



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AAATGAGGAC	TTTCTTTTTTA	TACTCATCTG	CTTTCAAAAA	GCATTCTAGT	CCATCTCCGA	7740
TTAACGATGG	ACTTTATCAC	CTCCTTCTCC	AGTCCTTGTA	TAACATCTTG	GAGTTGATTC	7800
ATGACATCTT	CCAAAGTTTA	AAAGGCTTTA	TTCTTAAATC	CACGTTTACG	AATCTCTTTC	7860
CACACTTGTT	CAATGGGGTT	CATCTCTGGT	GTGTATGGAG	GAATAAATGC	AAAGCCAATA	7920
TTAGTCGGAA	TCTTTAAGGT	ACTTGATTTA	TGCCATATAG	CATTGTCCAT	AACGAGTAAA	7980
AGATAATCAT	CTGGATAAGC	TTGTGAAATC	TCCTATTCCT	AAAGCCCCTT	TAGCGCATAA	8040
CTTTGGCTCA	GCTTCTATTA	TCGCTCACAC	CATCCATCAG	AAGTTTAATC	TGAAGGTACC	8100
CAATTATCGC	CAAGAAGAAG	ATTGGGCTAG	GATGGGTTTA	CCAATCACAC	GTAAGGAAAT	8160
CTCTAATTGG	CATATCAAGG	CGAGTCAATA	CTATTTGGAG	CCCCTTTATA	ACCTCTTGCG	8220
AGAGAGACTA	TTGACTCAGC	CCTTACTTCA	TGCGGATGAA	ACTTCTTATA	GGGTGCTAGA	8280
GAGTGATAGT	CAGCTGACTT	ACTATTGGAC	TTTTTTGTCA	GGTAAAGCAG	AGAAACAAGG	8340
GATTACGCTT	TACCACCATG	ATCAGTGTCG	AAGTGGTTCA	GTAGTACAAG	AATTCCTAGG	8400
AGATTATTCT	GGCTATGTGC	ATTGTGATAT	TTTGCGGCAG	TAACTTAGGA	CTTTAGTCCT	8460
CTAGTTCTGC	CTATGCGATA	GCAGTCCAAG	GTTTAGGAGC	AAGGCGACGC	TAAGCTTGGT	8520
AAACTTCGAA	CCGCTCGTCT	GCTTATCGTC	AACTGGAAGA	AGCTGAACTT	GTTGGATGTT	8580
GGGCGCATGT	GAGAAGGAAG	TTTTTTGAAG	CGCCCCCCCA	AGCAAGCGGA	TAAATCATCC	8640
TTAGGAGCTA	AAGGTTTAGC	TTATTGTGAT	CAGTTATTTT	CCTTGGAAG	AGACTGGGAG	8700
GCTTTGCCAG	CTGATGAACG	ACTACAGAAA	CGTCAAGAAC	ATCTCCAGCC	CTTAATGGAA	8760
GACTTCTTTG	CTTAGTGCCG	GCGTCAGTCA	GTTTTAGCAG	GTTCAAAACT	AGGAAGGGCA	8820
ATTGAATACA	GCCTCAAGTA	TGAAGAAACC	TTTAAGACCA	TTTTGAAAGA	CGGACATCTG	8880
GTCCTTTCCA	ATAATCTAGC	TGAACGCGCC	ATTAAATCAT	TGGTTATGGG	ACGGAGTAAA	8940
AGAGTCCAGT	GGACTCTTTT	AGCCTAAGCT	CAGTTTAAAA	AAGCGAGGGT	GGTTATTTTC	9000
TCAAAGTTTT	GAAGGAGCTA	AAGCAAGAGC	TATTATTATG	AGTTTGTGTTG	AAACAGCTAA	9060
ACGTCATCAA	TTAAATAGCG	AGAAATATCT	ATCCTATCTT	CTAGAATGTC	TTCCAAACGA	9120
GGAAACTCTC	GTAAACAAAG	AGGTTTTAGA	GGCTTATTTA	CCATGGACTA	AAGTTGTACA	9180
AGAAAAGTGC	AAATAAGAAA	TCTCCAGATT	AGGAACTATC	CGTGAGTTCT	CCAGTCTGGA	9240
GATTTTTCAA	TAGACTTCCT	GCGAAACAAA	ATATGGTATA	ATAGTTCTAT	GAATGATGAA	9300
GCAAGTAAAC	AACTAACCGA	TGCACGATTT	AAGCGTCTTG	TTGGTGTTCA	ACGCACGACT	9360
TTTGAAGAGA	TGTTAGCTGT	ATTAAAAACA	GCTTATCAAC	TTAAACACGC	AAAAGGTGGA	9420
CGAAAACCTA	AATTAAGTCT	AGAAGACCTT	CTTATGGCCA	CTCTTCAATA	TGTGCGAGAA	9480

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TATCGAACTT ATGAACAAAT TGCGGCTGTT TTTGGTATTC ACGAAAGCAA CTTAATCCGT	9540
CGGAGCCAAT GGGTTGAAGT AACTCTTGTT CAAAGTGGTG TTACGATTTT AAGAACTCCT	9600
CTCAGTTCTG AGGACACGGT AATGATTGAT GCGACGGAAG TAAAAATCAA TCGCCCTAAA	9660
AAAAGAATTA GCGAATTATT CTGGTAAAAA GAAATTTTAC GCTATGAAGG CTCAAGCGAT	9720
TGTCACAAGT CAAGGGAGAA TTGTTTCTTT GGATATCACT GTGAACTATT GTCATGATAT	9780
GAAGTTGTTT AAAATGAGTC GCAGAAATAT CAGACAAGCT GGTAAAATCT TGGCTGACAG	9840
TGGTTATCAA GGGCTCATGA AGATATATCC TCAAGCACAA ACTTCACGTA AATCCAGCAA	9900
ACTCAAACCG CTAACAATTG AAGATAAAGT CTATAACCAT GCGCTATCTA AGGAGAGAAG	9960
CAAGGTTGAG AACATCTTTG CCAAAGTAAA AACGTTTAAA ATGATTTCAA CAACCTATCG	10020
AAATCATCTA AACGCTTCGG ATTACGAATG AATTTGATTG CTGGTATTAT CAATCATGAA	10080
CTAGGATTCT AGTTTTGCAG GAAGTCTATT ATCAAAAATA CCATCAAGAT TATATAAGAT	10140
TGATACAGGA AAAGTTTTAT TTGATGGTGT AAATATTAAT CAAATAGATA AAAAAATATT	10200
AAGTCAAAAT TTAGGAGTAG TTCCACAGGA TTCATTTTTA TTGAACCGAA GTATTCTTGA	10260
TAATATAACT TTAAAGCACG AAGTTACTTC ACAAAGATA GAGGAAGTTT GTAAAGCAGT	10320
TCAAATCTAT GATGAAATCA TGGCTATGCC GATGAAATTT AATACTATCA TCTCAGAGAT	10380
GGGGTCAAAT ATTTTCAGGTG GGCAAAGGCA ACGGATAGCA CTGGCACGTG CATTAATAAA	10440
TAATCCTAGT ATTGTAATTT TAGATGAAGC AACTAGTGCA TTAGACACTA TTAATGAGGA	10500
AAGAATAACA AAGTATATAC AAAGTCAGGG CTGTACTCAA ATAATTGTAG CTCATAGATT	10560
GTCAACGATT AAGGATGCGG ATGTTATTTT TGTAATGAAA GGTGGTAAGA TTGTTGAGTC	10620
AGGAAATCAT AAGTACTTAA TGGATCTTGG TGGAGAGTAC TACAGCTTAT ATACAAAAG	10680
GAAATGAGGT GTAAAGAAAA TGAAGAAAGA AAATGAATAT GTAATTTTAA CAACAGCCTC	10740
ACTAGGGGTG ATGATTGGAA TAGTGTTTGC AATTTTTTTA GATTTTCCAG TTGAATATGG	10800
TATTTCTTTA GGCTTGTTGA ATGGAATAGT ATTGGGTTCG CTGATTGTTT AAAAAACAA	10860
TAAGAATTAA GCATAATTTT TTGCTGTAAA CTAAGGAGTA GAGATGGCTA TAGTTGAAAT	10920
TATAAATCTA AAAAAAGCT TTAAAGATAT TGAAGTTATT CATAACACTT AAATAATAGA	10980
GCAACTACAG TAGTAGCTTA AAAACATGAT TAAATCGCTA TTCTTAGGAG TAGCGGTTTT	11040
TCTTTTTGTT TAATACTCTT TGAAAATCTC TTCAAACCAC GTCAGCTTTG CTTTACCGTA	11100
CTCAAGTACA GCCTGCGGCT CGCTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATAAAA	11160
AGGGTCAAGT AAGTATAGTA AATTGAAATA AGATATGAAC AAATCGATTA GAAAAGTCAA	11220

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ATTAATTTCT AGAAATATGT TAGAAATTGG TTTGAATTCC GCAATCAATT TGTTCAGTTT	11280
TTATTTTCATT TCATTTTATT TAATTAGATT TTCCAATTTT TTAATTCAAG CTAAAAATCC	11340
CCAATCGTAG TGATTGAGGA TTGAGTAAAT AAATCTTAAA CAATACCTTG TGCAATCATG	11400
GCATTTGCTA CATTTTCAAA GGCAGCAATG TTAGCTCCTG CAAGGTAGTC TTTATCAAGA	11460
CCGTATGTTT CTGAAGTCGT TTTAGCTGTG TTGAAGATGT TTGTCATGAT GTCTTTGAGA	11520
CGGCCATCAA CTTCTTCACG AGTCCATGAG AGGCGAAGAC TGTTTTGGCT CATTTCAAGA	11580
GCTGAAACGG CTACACCACC AGCGTTGGCA GCTTTTGCAG GTCCGTAGAA GATACCATTT	11640
TCTTTGTAAA CTTTGATGGC ATCAAGGTCG CTCGGCATGT TGGCACCTTC AGATACACAG	11700
ATAACGCCTT GAGCAACCAA ACGTTTAGCT GCTTCACCGT TGATTTTCGTT TTGAGTGGCA	11760
CATGGAAGAG CAATGTCATA GTTTCCAGCG TAAGTCCATA CAGTACCTTC GTGGTAGGTT	11820
GCAGTTGCTT TTTCAGCTGC ATACTCAGTC AAACGAGCAC GACGTTTTTC TTTAACATCA	11880
ACCAAAAGAT CGAAGTCGAT ACCATTTTCA TCGATGACAT AACCATTTGA GTCAGAAACA	11940
GAAATAACAG TTGCACCGAG TTCAGTTGCT TTTTGAAGAG CATATTGAGC AACGTTACCA	12000
GAACCTGAAA TAACGACTTT CTTACCAGCA AAGCTGTTAC CGTTAGCTTT GAGCATTTCT	12060
TCAGTATAGT AAACCAAACC GTAACCAGTT GCTTCTGGAC GAATCAAGCT ACCACCAAAT	12120
CCAAGAGGTT TACCAGTCAA GACACCAGCA TCAAATTGGT TAAGACGTTT GTATTGACCG	12180
TAAAGGTAAC CAATTTACG TCCACCAACA CCGATATCAC CAGCAGGTAC GTCAAGTGAT	12240
GGTCCGATGT GTTTTTGCAA TTCAGTCATG AAGCTTTGGC AGAAGCGCAT CACTTCAGCA	12300
TCTGTTTTAC CTTTAGGATC GAAGTCTGAT CCACCTTTAC CTCCACCGAT AGGAAGTCCA	12360
GTCAAGACAT TTTTAAAGAT TTGTTCAAAT CCGAGGAATT TCAAGATCCC TTGGTTTACA	12420
GTTGGGTGGA AACGAAGTCC ACCTTTGTAT GGTCCAACAG CTGAGTTGAA TTGAACACGG	12480
TAACCACGGT TTAATTGAAT TTTTCCATCA CGGTCAACCC AAGGAACACG GAAAGAAACC	12540
ACGCGCTCAG GCTCAGTAAT ACGTGCCAAG ATATTTTCTT CGATATACTC AGGGTGTTTT	12600
TCAAATACAG GTTCTAAAGT GTTGAAAAAT TCTTCAACAG CTTGGAGGAA TTCAGCCTCG	12660
TGCCGG	12666

(2) INFORMATION FOR SEQ ID NO: 138:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 3083 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 138:

AGCAACTGTT GTGAACCAAT TCCGATAAAT TCCAAGAATT GGTAAATAGA GCCATTTTGA	60
CCAAAAATCC CGATAAAAGC ATAGGCTTTA AGGAGCAAAT TGATCCAGGT AGGAAGGATA	120
ATCAGCATGA GCCAGAGTTG ACGGTGTTTG AGACGGGTCA AAAAGAGGGC CGTCGGATAA	180
CTGATAAGCA GTGCCACAAA GGTCACAAATG CCTGCATAAA GCACTGAGTT GAAACTCATT	240
TTAAGATAGG TCAAGTTTTG TGACGCAAAG TAAGATTTGT AATTTTCTAA ACTGAACTGG	300
CCTTCGATGT TGAAAAAGGA TTGACCGAAA ATCAAGACCA AGGGTGCCAA TACAAAGAGC	360
GCAATCCAAA GCATGTAGGG TACTACAAAG AGTTTAGAGC TTGTTTTCTT CATCTCTTTC	420
CTCCTCGATT GCATTGATCA AACCTGCTTC TTGCTCTTCG ATTTCTACGT ACTCCTCAAT	480
ACGAGCATCG AACTCTTCTT CGGTTTCATT GAGACGCATG ATGTGGATGT CTTCTGGTTC	540
AAAGTCCAGA CCGATTTCTT CACCCACGAT AGCCTTACGG GTTGAGTGGA TCATCCATTC	600
ATTTCCAAGT TCGTCATAGG CGATAATTTT ATAATGAACT CCACGGAAAA GCTGGGTATC	660
GACCTTAACT TGGAGCTTGC CTTCTTCAGG AAGGGTAATG CGCAAGTCCT CTGGACGAAT	720
AACGACCTCA ACAGGTTTCA TTGGCTTCAT CCCACCATCA ACCGCTTCAA AGCGTTTGCC	780
GTTAAATTCG ACCAAGTAGT CCTCAATCAT GGTACCTGGC AAGATGTTTG ACTCCCCGAT	840
AAAGGTGGCA ACAAAGTGGT TGATTGGCTC ATCGTAGATG TCCACAGGGG TTCCAGACTG	900
GACAATCTCG CCATCATTCA TAACGAAAAT CCAGTCACTC ATGGCAAGAG CTTCTTCCTG	960
ATCGTGAGTG ACAAAGACAA AGGTAATGCC CAATCGTTGT TGTAATTCAC GCAATTCGTA	1020
CTGCATGTCT GTTCTCAATT TCAAGTCCAG CGCTGATAAA GGCTCGTCCA ACAAGACCAC	1080
ACGGGGTTGG TTGATGATAG CACGGGCGAT GGCCACACGC TGACGTTGTC CTCCAGAAAAG	1140
TTTGCGGATG GAACGTTTTT CATAACCTTC CAACTGAACC ATCTTGAGAA CTTCCGCTAC	1200
ACGCTGCTCG ATTTCTTTCT TATCAATTTT ACGCAAGCGA AGTGGAAGG CAACATTTTC	1260
AAACACATTC ATATGTGGGA ACAAGGCATA GGATTGGAAG ACGGTATGTA CGTCGCGCTT	1320
GTTGGTTGGA ATATCATTGA TACGAACACC GTCTAGCATG ATATCTCCTG TCGTCGCATC	1380
CAGTAAACCT GCAATAATGT TTAGGATAGT TGATTTCCCC GAACCAGATG CACCTAGAAG	1440
GGTGTAGAAT TTCCCTTCTT CCAACTCAAA GTTGATGTCT TTGAGAACCT TGGTGTTGCT	1500
GTCTTCAAAA ACTTTAGAGA CGTTTTTGAA TTCGATAATT GGCTTTTTCA ATTGGCATAA	1560
ATTCCTTCTT TTTCATAGAT TAACCGATCG GGGCTCTGTC AGGTCCCCAC TACCTCTTGC	1620
AGGGAGTAAA ACCACCTGCA TACATCTTCG CTACCGATAG GCTTTCACCC AAGATCCGGA	1680



930

CTTCTCTTTC AAGCGTAATA CCTGAGTGTT CCTTGACTTTT TTCGATAACC GATTGGATCA	1740
AGTCCTCGTA GTCTTTGGCC GTTCCATCTG CGACATTGAT CATAAATCCT GCATGCTTTT	1800
CTGACACTTC TACGCCACCG ATACGATAGC CTTTCAAGCC AGCTTCTGAA ATTAAC TGAC	1860
CTGCAAAATG CCCGACTGGA CGCTTAAAGA CCGAGCCACA AGATGGGTAT TCCAAAGGTT	1920
GCTTGAGTTC ACGTAGGTGC GTCAAGCGGT CCATTTCCTG CTTGATAACC TGATGGGTTC	1980
CTGGAGCTAG GGCAAATTTA ACTGACAAGA CAACTGCACC AGACTCCTGA ATAGCTGAAT	2040
GACGGTAACC AAAAGCCAAG TCTTTAGCAG ACAGGGTTTC GATTTCTCCA TCCTTGGTCA	2100
AGACCTTACA AGACTGCAAG ATGTGAGCAA TCTCGCCACC ATAGGCACCC GCATTCATAA	2160
AGACAGCACC GCCAACGCTT CCTGGAATAC CACAAGCAAA CTCAAAGCCA GTTAAACTAT	2220
GACGGAGGGC AATGCGAGTT GTTTCAATCA AGTTAGCCCC AGCTTCTGCT TCAATGGTAT	2280
AGCCATCAAC AGAAACGTTA TTGAGCTTGT CACACAAGAT GACAAATCCA CGAATCCCAC	2340
CATCACGAAC GATGATATTG CTTGCATTGC CAAGAACCAT CCAAGGGATA TTTTCTTGGT	2400
TGGCAAATTT CACAACGCGA GCCAACTCAA AACGATTTCG TGGAAAGACC AAATAATCAG	2460
CCTCTCCACC TACTTTTGTA TAACTATAGC TATGCAAGGG TTCCTTAAAA CGGATATCAA	2520
TTCTTCTTAA GATTTCAAGC ATTTTTTCTC TTACAGACAT GTCACCTTTC CTTTTACAAA	2580
ATTCATTCCA TTATACCATT TTTAGAGACA TTTGACGACC ATAAAAATAC CTTGTTTGGA	2640
TTTTTGCATAA GAAAAAGAGG TTCCCCCTT TTTATGATTT TTTACAAAAG ATTCCTTGG	2700
TTCCATAGGC GACCAGAACG AGCTCCAGTG CTAGAATCAC TTCAACCAAG ACTGGATTTG	2760
TCAACCAGCC TACTTGGAAA AGAGATGGTG CCAGATCAAA GAAGGCATGC AAGCCATAGG	2820
CTGCTAGGAG ATAAATCCAT TTCTTCTGGC GAACAGCTTG GTAAACCCAA ACTGTCAAAA	2880
GTAATTGGAA ACCAAGCGCC AAGATTGCT CAAAACCAAG CAAATAAATC TGCCAGACCG	2940
AAAGTGAAGT AATGGTTTTT AACATATTTT CAGACAGTAA TTGCAATAAC TGTGGATTC	3000
GAGTTTGAAC TGCCGAAAGA ACAATGTAAA GATTGAGTAA ACTAGTAAGG CCTAGAAAAA	3060
TCAACTCCAA GCCACCATGC CCC	3083

(2) INFORMATION FOR SEQ ID NO: 139:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 15363 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 139:

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CCGGAGGATA	TTGACCACCA	CCAAAAGCAG	GGGGAAAATC	GAAATCAACC	AATAGTAGGC	60
TACTGCGACA	CTGGTCAACT	CACTATCTGA	TGCTTGATAA	TAATGCAAAA	AAGCTTTTAA	120
TAAAGGTTTG	TCTATCAGCT	CTTCCACCA	CTTTTTCATG	TCATACTCCT	TCACTTATAA	180
TCTTATACTC	AATGAAAATC	AAAGAGCAAA	CTAGAAAGCT	AGCCGCAAGC	TGCTCAAAAC	240
ACTGTTTTGA	GGTTGTAGAT	AAGACTGACG	AAGTCGATCA	CATACATACG	GTAAGGCGAC	300
GCTGACGTGG	TTTGAAGAGA	TTTTCGAAGA	GTATTAATA	ATTTCTTCTT	ACCAATTCCA	360
CCATATCATA	CGGTAGGGTA	TTGGCAGCTT	CCTTCAAGGA	ATAGTTCTCT	AAGTTATTTA	420
CATTTTGTCG	TAATTTCTTG	GCATACTTAG	TCGTAATCAA	TCGTTTTTCT	TCGTATTCTGA	480
AAATCAACTT	GCGCTCCAGA	TAATAGCCTC	TCAGCATTTT	ATCGATATTG	TTGGGTTTGA	540
CACGATTGAT	AACCCGTTCG	ACAAAGGCAC	CACTGCTGAT	AATAGCTGTT	TCTCGAAGAC	600
GAGACTCCTG	CATAAACTA	ATCAAAGAGC	GTCTGTAGAC	TCCCTTCAGG	TTTTCCAAAC	660
TTTCAATAAT	CATCTCTGTA	TTGGCAAGAT	AGAGCTCTGC	AATTTGGTCA	TAATCAAGAG	720
CACGGAGACG	GCTTTGCTCC	TTGTTCTTCC	AGCTACGGAA	GGTCTTTCCG	AGAGTAAAAA	780
CTTCATGAAG	GAGAAAACGT	AAAATCCTCA	AGGAAACAAG	AAAATAATAG	GTCAGTCTTG	840
AGGCAAGTTT	ACGATTGATT	CCTTGTTCTA	TATTTTTTCAG	ATAACGTTGG	TAAACTCGGT	900
AAGCACGATT	GCTAATGTTT	CCCTCTTCAT	AGGCCTGTTC	CAAACCATCA	CTTTCAATAC	960
TAAGAATCAA	GAGTTTCAAA	GCAGCCCAGT	CTTCTTGATC	ATCCTGGTTT	TCTTGGCTTA	1020
AAATGAGATT	TTCAATACGT	CCATGATAAT	TGTCAATAGC	CGCATAGAGG	GGAAGTTTAT	1080
TTCTGGTGTC	TTCCAACCTC	TTTTCCAAC	CTAGCGTTAC	TTCATTCAAA	ATGGCGATAT	1140
GCATAAGATA	ATCCTTGCTT	TCTTCCTCTT	CATCAGAAAG	ATGAGGCAAG	ACCAAGAGAC	1200
CTGTTAAAAA	GCTAACAAGC	GTCACACCTG	CAACAAGGAA	AAGCAAAAGA	GGATACTCCT	1260
GTTCTAGATT	ACTTGGTATC	AAGAGAATCG	TAGCAATCGA	CACCGTTCCC	TTAACACCTG	1320
AAAAGGTCAA	GAGAAACATG	TCCTTCATAT	ACTTATTTAG	CTTTTTCTTG	AGGCGTCGGG	1380
TTCTATAGGC	ATAATAGCCA	TAGATCATAA	TAAAACGAAT	GACAAAAAGG	ACAAAGGTAA	1440
GGGCGATAAG	AGATAGCAAT	AAAAGTAGAG	GATTATAGAT	TGGATTGGTC	AAGATAGGTT	1500
CTGCTATCAT	TTCCAACCTC	ATCCCTAAAA	TCACAAAGAC	AGAACCGTTG	AGCATAAAGG	1560
TCACTGTATG	CCAGACCGTC	TCGGTCACCG	TATCCACTTG	GGCTTCGAGG	AGCGTGATTT	1620
TCTTGAAGCG	ACTTGCCTTT	AAAATTCCAG	CAACTACGAC	GGCAATAATA	CCTGAAACAT	1680
GAACTTCTTC	TGCCAGAAAG	AAGGTCAC	GAGGCAAACT	CAATTCTAAT	AAAAGTTCAC	1740

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TGGCAATATC	CGTTGCGCGC	ACACTTAGCA	AGAAGGTATG	GAGGAAGCGG	TTGGTCATGG	1800
CTGTTAAAAA	TCCAATTAAA	AAACCGCCTA	GGATTGAAAA	GATGAGCGAA	CTGCTAGCTT	1860
GCCCCAGAGA	AAAAGCTCCA	GTTGTCCAAG	CTGTCAAAGC	TACCTGAAAA	GCCACCAAAC	1920
CAGAAGCATC	ATTCAAGAGT	CCTTCGCCCT	TAAGAATATT	GGACACGCGC	TTAGGAAAGC	1980
TAAAACGCTC	CGAAAGAGAG	GCAAAGGCCA	CCAAGTCCGT	AGGACCAAGG	GCTGCCCCAA	2040
CAGCCAAGCA	AGCTGCCAAG	GGAAGGCTGA	ACCAAAGAAG	ATGGGCCAAG	CCACCCAAAC	2100
TCAGGGTCGA	GATAAAAATC	ACTGGAAATA	TGAGATAAAC	AATGATTTCG	CAGTGTTTTA	2160
AAATAGCCGT	AACATCTGCT	TCTTCAGCCT	CTCGGAAAAG	CAAGGGTCCG	ATAACCAGTG	2220
CCAAAAACAA	CTCCGTATTA	AGGTGAAAGT	CAGTATTGGG	TAAAAAGAGA	CCAATCACAA	2280
TTCCCAAAAG	AATTTGCACC	AAAGGGAGAG	GCAAAAAGGG	CAGGAGCTTA	TTGGTTGTAC	2340
TTGAGACAAT	CAAAACCAGT	AAAAATAGGA	TGAGGTAAAT	CAGTAATTCC	ACGCACGTCC	2400
TCCTTAATCT	TTTTTACAAC	AGGATTCAAA	TATCTCCTTC	TGCTCTTTGA	TTTTTTGGTC	2460
AATCTTGGA	CAGTCTTTGT	GCTCAATTTT	TCTCTGGCAC	CGTTCCATTT	CAAGAGCAAC	2520
TAATTTTTTC	TTGATTTTAA	GCATTTTTTT	GCTCATATGC	GCTTGGTCTA	GCACGCCCAT	2580
CGCTCGTTCG	TGGTGGGTTG	ATTCAACAAA	ATTCTGGCGC	ATGGCATCCA	GCTTTTCGTG	2640
TAAGTATTGT	TTATCCATGT	CTGTATCTCT	CTAATTTTTC	AATCATCACT	AAAAACGGCG	2700
GGTTGTTGAC	TTGGTTTAAA	GTTGCGTAAA	TGGCAGCTGT	GTACTCTTGT	TGGTTCAACT	2760
GGATCACAAA	ATCCAAGACA	GCATCTCTCT	CGAGATCGCC	TCCTTCATGA	CCATAGTAAA	2820
TCATAATAGC	AATTCGTCCA	CCTTTGACAA	GTAAGCCACA	TAGCTTTTCT	AATGCCTCAA	2880
TCGTTGTCTG	CGGTCGGGTG	ATGACAGACT	TATCAGCTGC	CGGCAAATAG	CCCAGATTAA	2940
AAATCCCTGC	CTTAGCTTTT	ATCACAAACT	GGTCCAGTGT	CTCATGGCCT	TGCAAGATTA	3000
ACTGGGCATT	TGTCAAGTCA	GCCTGATGCA	AACGCTCTTG	GGTCTTTTCC	AAGGCTTGCT	3060
TCTGAATATC	AAAGGCATAG	ACTTGCTTGG	CTAGCTTGGC	TAAAAAAGC	GTGTCATGAC	3120
CATTTCCCAT	AGTCGCATCC	ACTACGACAT	CCTCTTTTGT	CACGACCTCA	GCCAAAAAAT	3180
CATGTGCCAT	CTCAAGTGGT	CTTTTCATTT	TCAAACCTCCT	GTTTTACAGC	CTTGCATCCT	3240
TGAACACTTC	CACGACGTCG	CATCTCCATC	TCAATGCTGT	TGAGGACTTC	CCATTTATTG	3300
AGGCTCCACA	TAGGACCAAG	CAGCATATCC	CTAGGCGCAT	CTCCTGTAAT	TCGATGGATG	3360
ACGATATGTT	TGGGAATAAT	TTCCAGTTGG	TCACAGATGA	CCCTGACATA	TTCGTCCTGA	3420
CTCATCAATT	GTAAACGCCC	CTCATGGTAA	TCTCGTTGCA	TACGAGTATT	TGTCATAAGA	3480
TGGAGCAAAT	GCAGTTTAAT	CCCTTGAATA	TCGTTATCCG	TGACACAACG	GCGGACATTT	3540

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TCAACCATCA	TCTCATGGGT	TTCACCAGGC	AAACCATTGA	TCAAATGGGA	AACAATCTCA	3600
ATTTTGGAT	ACTTCTCAA	ACGCTTGACC	GTTTCCACCT	ACAATTCATA	AGAATGCGCA	3660
CGGTTAATCA	GGTCAGAGGT	TGCTTCATAA	GTAGTTTGCA	AGCCCAATTC	AACCGTCACA	3720
TGCATGCACT	CCGATAACTC	AGCCAAATAT	TCGATGGTTT	CGTCTGGTAA	ACAGTCTGGG	3780
CGCGTTCCAA	TATTGATTCC	TACCACACCT	GGCTCATTTGA	TAGCCTGTTC	ATAACGCTCT	3840
CGAATAACTT	CCACCTTTTC	ATGGGTGTTG	GTAAAATTTT	GAAAATAAAC	CAGATACTTC	3900
CGAACATCCG	GCCACTTGCG	GTGCATAAAG	TCAATTTTCCT	TATAAAATTG	CTCACGGATA	3960
GGCGCATCCG	GTGCCACAAT	GGCATCTCCA	GAACCAGAAA	CCGTACAAAA	AGTACAGCCC	4020
CCATGAGCCA	CAGTCCCATC	ACGATTGGGA	CAATCAAATC	CCGCATCAAT	AGGGACTTTA	4080
AAAGTCTTTT	CTCCAAAGAG	TTTTCGATAA	TAATCATTTCA	AGGTATTATA	AGATTTTCATG	4140
ACTTTCATTA	TAACAAAAAT	CACCCACAAT	CTCAAAAGCC	TGACTTTCCT	ATAAATTCCT	4200
CTGTTTCTCG	TTTCCATTAG	CCTTTTTTTA	TGATACAATA	TGGGTATGAT	TTTAATGAAA	4260
TTAGCATCTA	TTTTATTATT	GATACTGACC	TTAGTCGTCT	GCATTATCCT	AACCAAACCTT	4320
TTTAGATTAA	AAAAACTAGG	ACGAAACTTT	GCGGATTTGG	CTTTTCCAGT	CTTGGTATTT	4380
GAGTATTACT	TGATTACAGC	TAAAACCTTT	ACCCATAATT	TCCTCCCTAG	ACTGGGGCTA	4440
GCCCTCTCGA	TCCTAGCCAT	TATTCTCGTC	TTTTTCTTCC	TTTTGAAAAA	ACGCAGCTTT	4500
TACTACCCTA	AATTTATCAA	ATTCTTCTGG	CGTGCAGGAT	TCTTATTAAC	CCTTATCATG	4560
TATATAGAAA	TGATTGTTGA	ATTGTTCTTA	ATGAAATAGT	CGAATCCCTA	AGCATTTTCT	4620
AGGGATTTTT	GCTTCTCTA	CAAAATAGTA	TAGACAATAA	CACTATACAA	TTTTATACAA	4680
AGAAAAGAGT	CTGGGACAAT	AGTCTCTTAT	ATCCAAAAAG	GCAACGGATT	TGCCGTTGCT	4740
TTTTTGGATG	GTTACGATAG	TCTTGGTAAA	ATAGAATTGC	CCAATAAACC	ATTTAGAAAG	4800
GCTATCCCAT	GCATATTCAC	TATAACACAA	ATCAAACAAC	TTTACCACTA	GAAATCAGTT	4860
CCTTCTTACC	ACAAGATCAT	CTCGTTTTTA	CTATTGAAAA	AGTGGTGAAT	ACCTTGGAGG	4920
AACGTCACCT	CTACACCTCC	TATCATGCCT	TTGATCGCCC	GTCTTATCAC	CCTAAAATGC	4980
TTGTATCTAC	TCTTCTATTT	GCCTATTCAC	AAGGGATTTT	CTCTGGTCGA	AAAATTGAAA	5040
AATGGAAGAG	TTAGTGACCT	TAGATTGTTT	GTTTATTGAC	AGAACTAAGA	TTGAAGCCAA	5100
TGCCAACAAG	TATAGTTTTG	TGTGGAAGAA	AACGACAGAG	AAATTCTCCG	CCAAACTTCA	5160
AGAACAGATA	CAGGTCTATT	TTCAAGAAGA	AATCACTCCC	CTTCTGATTA	AATATGCCAT	5220
GTTTGATAAG	AAACAAAAGA	GAGGGTATAA	AGAGTCAGCT	AAAAACTTAG	CGAATTGGCA	5280



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CTATAATGAC	AAGGAGGATA	GCTACACACA	TCCTGATGGC	TGGTATTATC	GTTTTTCACCA	5340
TACCAAATAT	CAGAAAACAC	AGACAGACTT	TCAACAAGAA	ATCAAGGTTT	ACTACGCCGA	5400
CGAACCTGAA	TCAGCCCCTC	AAAAGGGACT	GSTATATGAAC	GAACGCTATC	AAAACCTTGAA	5460
AGCTAAAGAA	TGTCAGGCGC	TTTTATCTCC	CCAAGGTAGA	CAGATTTTCG	CTCAACGCAA	5520
GATTGATGTG	GAACCTGTCT	TTGGGCAGAT	AAAGGCTTCT	TTGGGTTACA	AGAGATGTAA	5580
TCTGAGAGGG	AAGCGTCAAG	TGAGAATTGA	CATGGGATTG	GTACTTATGG	CCAATAACCT	5640
CCTAAAATAT	AGTAAAATGA	AATAAGAACA	GGACAAATCG	ATAAGGACAA	TCAAATCGAT	5700
TTCTAACAAT	GTTTTAGAAG	TAAAAGTGTA	CTATTCTAGT	TTCAATCTAC	TATACAATAA	5760
GAGAATGACT	CAAAATTAAA	AAGCTAGAGT	TCCACAATTG	GAAATATCTA	GCTTTTTTGT	5820
GGTTGAGAAC	TATTTTGTCT	CAGGCTCTTT	ATCTTCTATT	TAGGACAAGA	GTTTTTCTTT	5880
GGTCTTTAAT	GATAAAGAAG	GATCAAAAAT	TTCTAGTCTT	CTTTTTTACC	TTTAGTAACT	5940
ACTAATCCTG	CACTCAAACC	TAGAAGAGTT	AAACCTGCTG	CTACTGCTGC	TTGGCTTGCC	6000
GCACTACCTG	TACTTGGTAA	CTGGGCTTTA	TTAGTTTGAC	TAGCTTCACT	TGAATCAATT	6060
GGTTTTGTAT	CTGCTTTTTT	TGACACTTGT	GGTTTTTTAG	CTTCTTGAGC	TACTGGTTTG	6120
GTTCCAACCA	AGACGATGCG	GTCTGTGCGA	ACTTCTACCA	CTTCACGGAG	TTTTTCTTCC	6180
TTACTTCCAT	CAGGATTAAT	CGCTGTAAAG	ATACGTTCTT	TTCCAACCTT	TCCTTCTTGT	6240
TCTACACGAG	TTTCACCTAG	ATACAGTGTT	GAATCTTTTT	TCTCAACTGT	CTTGTATGCC	6300
AAATCTTTTT	CAACAAATTC	GATTTTTTGA	AGATCTTCTT	GTACAGCAGC	AACTGTCTTC	6360
TCAGAAACTG	GTTTTTCCTT	AGTCAAGTGG	ATACGGTATT	CCTTGACTTG	TTTTCCACTT	6420
TCTGAAACGA	GGCGAACAAG	TACTGGAAAG	CTATCTTCTC	CACTATCTAC	CACAGTTGAA	6480
GCTACTTGAT	TGTTTTCTTC	AACTGAGACT	TTGGCCGTT	GACCTTTATA	GGTAATTTGA	6540
TAGTCTTGAC	GATTTTCAGC	GAAATCAGCA	AGTTCTTTTC	CATCTACAAG	AATCTTTGAT	6600
TGAGTGCTTT	CTTGAGGCAA	TTCACTTGGT	GCAAGGAAGG	TCATCTCAAT	CATCGCAACA	6660
CCGCTCTTAT	CTGCTTTACG	CTCCATACGC	CATCTCATAG	CTTTGGCTTT	GATAGCTTTA	6720
AATGTTACGT	TGATTTTCATC	ACCAGCTGCA	ATGTCTTTAT	CCGCACGATA	AGGAACAGCT	6780
TCCCAATTTT	CTGGATTGTT	GAATGGATGG	TCTGCGTCGT	AGGCTTGGTA	GTTTGAATAG	6840
TAGGTTGGCA	CTTCAAACCTC	TGGACCGACA	TAGCGTTCTA	AAACGAGTTT	AGATGGTGCA	6900
TCCGTACCAC	TATCTGCAAA	GAAGTGAAGT	TTTCCTTGTG	TAACAGTCCG	TTCTACAATC	6960
TTACCATTTT	CACGGAAAAT	CACACCCGCT	GATACTTCTG	GATTAGAAGA	TGGTGTTGGT	7020
GACCAGTTTG	TCCAACGACG	ATTTTCTGAA	TGATCTCCGT	CATTGAGATA	GTCAACGCGG	7080

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TCATGAGAGT	TTTTGTCAAT	ATCATTGGTT	GCTGAAGCAA	AGGCCTGGTT	ACTGTTTTCA	7140
TCATAGTTAG	GGTTATCTGA	AAGAGTCTCA	CCAAGTTTGT	CTGTCACTCG	TACAGTGATC	7200
TCAGCAACAA	GGTTACTACC	AAGGACACGG	CCTCGAACAG	TAAATTGACC	TGCTTTTGTC	7260
AGATTTTCCG	CTGGAACTTC	TTCCCATTCA	ACTGTCAGGT	CTTTTGTTTC	GTAGCCGTCT	7320
TTACCTGTGA	AGTAAACTGG	AACCTTAGTC	GGCAATTCAA	GTGCTTGACC	TACTTGTAGC	7380
AAGCGAGCTT	GTTTAACCGC	AGCAACTGGT	TTATGAGAAA	GTAAGCTCTT	ATCCTTAGTG	7440
AAGTGCAGAC	GGTATTCTCC	TAAGATGTCG	CCATTTTCAG	CTTTCGCGAT	GACACGAACT	7500
GGCTCACCTT	CACGAACGCT	TGGAACGACG	GTAGCGAGAC	CATTGTTGCT	AACACTTGCT	7560
GTGACTGCCG	GAACTTTTCC	ATCTACAGAC	TCAAGGTAGT	AGTCTGTCAA	ATCAGGGTTG	7620
AAGTTTGCTA	AGTCTTTGCC	GTCAACTTGG	ATTCTTGTTT	GTCTTGCTT	GGCTGCCGCA	7680
ACTTGTTTCG	CAAAGATTTG	TACCTCTGTG	ATAGACGTTT	CACGCTTGTT	ATCTGCTTTA	7740
ACCATGCGAA	TACGAACAGC	ATAGGTTTCA	ACTTTATCAA	AGCTAAAGTG	GTTCAATTTCT	7800
CCAGCCTTGA	GTTGAGCAGG	GGCTTTTAGA	TTAGTAACTG	GTTTCCAGTT	GGCAGAATCA	7860
TTAAAGACAT	GGTCCTCATT	ACCAACAAAA	CTAGGGTTTT	TAGGAGCTGT	TGGGACAGTC	7920
TTACCAACAT	AATACTCAAT	CACATAAGAC	TTCGGTACAC	CAACTCCATG	GTCTTCATGG	7980
AATCCGACAC	TTAGATTATC	AACGGAGCGT	TTGCTCAAGA	TACCTGAATC	TCCAAACAGA	8040
ACACCGACTG	AAGCTTCTGG	ATTAGTACGA	TTCCAGTTTG	TCCAACGATT	GGCTGGTTGG	8100
TTATTGTAGG	AAATGAGCTT	GTCATTAACA	TTTGAAACTG	GGTCGCTTGG	ATTTGAGTCT	8160
GAAGCAAAGG	CAAGTGGCAA	TTCTGAACCG	GTCCATTGGT	CAGAAATGTT	TGCACCTTGC	8220
TCAGTTTGAG	CAGATACGCG	AACATGAAGT	TTAGTTGTTA	ATTGCGTACC	TTCTAAGCGA	8280
CCATTAACTG	TAAAGACACC	TTCTTAGCG	TATTGCTCTG	GACGAATCGC	ATCCCATGCA	8340
ACCTTAGCTG	ATGAAACGTG	ACCATTTGAA	TCATATGTCC	GAACACTTTC	TGGTAATTGT	8400
GGTGCTTCTG	CGATTGGAGT	TGTCACACTG	ACTTCTTCAA	CTGAAACGAT	ACCTTCTACA	8460
GAGACTTTTG	CACGCGCTTC	AAGGTCAATT	CCTTCAACTT	TACCTAGTAC	TTCAAATGTT	8520
TGATAGGAGT	CTAGTTTTTC	TTTCGGAATA	GCTTGCCAAG	TGACTTTATG	AGTTTTAGGG	8580
AAACCTTTGT	CATACTCAAC	TGTTACTGTT	GCTGGAAGAC	TTGGTTCCTG	ATGCAAATCT	8640
GTCACTACAT	TTACAGGACG	GATGGATTGC	GCAATCTTCT	TCTCAGTATT	GGCTTGGATA	8700
GTGAGTTCAA	CTTGGTCTTT	AGCTCCCTCA	TATTCAGCGT	TCAGAGTGAC	TGCTCCTGGC	8760
TTATGCAACT	CAAGCATTCC	TTTACGAATT	GCGACTTCCC	CTTCACCACT	TGTAGAGAAG	8820

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GTTACTTTAT	CAGCTGGTAA	TACAGCTTGC	GTTCCATCTT	GATAGTGAGC	TCGAACCGAC	8880
AATTTGACAG	TTTGGTCTTC	TTTGAGACTG	TCAGCTTTTT	CCACTTGCAA	GCTCAAGTGA	8940
GCAATTTTGT	GCGCTTCTTC	AAGGAATTGA	ATTGCATAGG	TTTGAAGAGG	GCCACCATCT	9000
TTAGGCTGAA	TAAAGATGCT	CGCACGCATG	CCGTTTGCTG	CGCTTGCTTG	AAGAACTGTA	9060
ACAGCTGCAT	TTTGTAGCACT	TGCTGTGACT	TCTGGCAACT	TAGCTCCATA	AGCAAGAGTG	9120
CGGTATTGCA	TTGGTTTTTG	ACTAGTAAGA	CCTGTTACTG	CCTCACCACC	AACCGTTACA	9180
GTTGGTACTG	CAGGTGCCGC	AGGATTGCCT	TCTTCTACCA	CAAGGGTTGC	ATGAATTGGT	9240
TGACCTTCTA	AATAACCGGT	CGCTTGAATA	CGAGAACCTG	GAATTGCTAA	CTTAGCTTTA	9300
TCTTCTTCGG	CAATCTCCCA	CTTGTCCACT	TCATACTCTT	CAACACTTCC	ATCAATCAAA	9360
ACATAGGAAA	CAGATTTGTC	TACAGAATTC	AAGTCAGTAT	TTGGAGCAAT	ACGTTTCACA	9420
ACTGGTAGCT	CTGATTTAAG	AGCAATCACT	TCTACACGAG	CTTCTACTTC	TCGTCCGTCA	9480
GCCATACCTT	TCACCGTTAC	AATACCAGGC	TTGCTCACAT	CTACTGAAGA	CCAGGTTACA	9540
GGACGTCTG	CACGGCTACC	ATCACTGTAT	ACAAACGGAA	CAGTGGTAGG	CATTTTCAGGT	9600
GCCTCTCCAA	TAATGGTCTG	TACTTTTGGC	ACTTCTGTCC	CCAAAACAGT	CTTCTCTTGT	9660
CCTTCTTTCT	TACCAGTAAA	GACAGTGACT	TGGTTCGATT	TCAAGAGATC	AGAGTGGGCA	9720
GTCAGGGTGA	ATTTCCCTGC	TTGTTTCAGTT	GATTTGACAA	TGGCAACACC	TTTACCATTA	9780
AATGCTTTAC	GAATCCAAGA	ACCATCTGCT	TGCGCCTTAT	AGCGTTCACG	GCTGGCTTGT	9840
TCTCCGTAT	CTACACCGAC	CAGTTGACCT	TGGCCATGCA	ATTGGAAGCG	AACCAGATTA	9900
TTAGCAGTTG	GAACCACATT	CCCCTGGCTG	TCAACAATTT	CATAGTAGAT	GTAAGTCAAG	9960
TCTTTTCCAT	CTGCTGCAAT	CGCATGGTCT	TCCTTAATAA	GACGAACTGC	CGCTGGCTTA	10020
CCAGCAGTCG	TAATCTTATC	TCGAGCAATT	TCCTTGCCAG	ATTCATCACG	AGCAATTGCT	10080
TCCAAGGTAC	CTGGTTGATA	GGCAACTTTC	CATTCAAGAT	AAAGTTCATT	AGCATTTGCA	10140
CCTTCTTGGT	AAGTCCGCCC	ATCGCTGGTT	TGTTTTTTAT	TGAAAGTCTT	AAGACCAAGA	10200
GATTTTCCAT	TCAAGAACAA	TTCTACACTA	GAAGCATTCG	AATAAGCACG	AACTGGAATC	10260
TTACCTTCTG	AGTCAGCTAC	TTTGATGCT	AATTCTTTGT	TTTCCCAGTT	CCAGTGAGGA	10320
AGAAGGTGTA	CCATCGGTTT	CTTCTTAACA	GAAACCCATT	GGCTTTGGTA	GAGATAGAAG	10380
TCATGTTTTG	GAATGCCGGC	TGTATCTACG	ATACCAAAGT	AAGAGCTCTT	AACAGGAGTT	10440
TGATTTTGGT	TGTGCCATGG	TGTAGGTTCA	CCAATATAGT	CCGTACCTGT	CCAGATAAAC	10500
TGTCCAGCAT	AGCCAGCGTT	GTCACGGTCA	AAAGTCCATG	AAGCGGTTGC	TGTTTTCCCC	10560
CAACCCACAC	GATCATTTCC	ATAATCTGAC	TGTTTCATAAT	TACGCTCAGG	TCCATTGCTA	10620

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TGTTTCAATT	CACGTTTCAGG	GCGATAGTAA	CTTCCACGTG	TACGGGTAGC	TGAAGATGTT	10680
TCTGATCCAT	AAATCAACCA	TTTTGGATGC	TTAGCTCTAA	GGGCTTTGTA	ATTATCTTCA	10740
GAATAGTTAA	ATCCAACAGC	ATCGAGTTCA	TCAGCAATTT	TCTCATGCCC	TCCGCTACCA	10800
TTACCGAAAC	GGAATTTATC	TGCTCCCATG	GTAACATAGC	GAGTCTTATC	AACATCCTTG	10860
ATAACCTTAA	CCAAACGTTT	AACAGTTGCT	AAAGAGTGGG	CATCACCATT	AGCTTCACCT	10920
ATTTCATTTAC	CAATTGACCA	CATGAAGATA	GCAGGGTTGT	TTTTGCCTCT	TTCGACCATG	10980
GTACGTAGGT	CAAAATCAGA	CCATTTTTTCA	CCTTTTCGAG	CTTCTGGGTG	AGTGGCATCT	11040
TTTTCAAAGA	AACGTCCATA	GTCATAAGGT	TTCTTGCCAC	CATACCACGT	ATCAAAGGCC	11100
TCTTCCTGAA	CGAGTAAACC	TAGTTCTGCT	GCGATTTGCA	AGGTTTGCTC	ACTAGCAGGG	11160
TTGTGGGTTG	TACGGATGGA	GTAACTCCC	ATCTCCTTCA	TTTGTTTGAG	ACGGCGATAT	11220
TCTGCTTTAT	AGTTTCTTTC	TGCTCCAAGC	GCCCCATGGT	CGTGGTGCAA	GGATACTCCA	11280
TGGAATTTAA	TACGTTTACC	ATTCAAAGAG	AAACCTTCAT	TTGGAGTCCA	GTGATAGTAA	11340
CGGTAACCAA	ACAAATCCTT	CTTAGCATCA	ACCAATTGAC	CGTCACGGTA	AACACGCGTA	11400
ATCAATTCGT	ACAAGGCAGG	TTTGTTCATTT	AAAACAGTCC	AGAGTTTGG	TCTTTCAACT	11460
TCTAAAATCG	CATCTAGGCT	TGTTGATTCA	TGTGCTTTTA	AGGTACGACT	CGCTGTACGA	11520
ACTAAGCCTG	TTACAGCATG	ACCACCTCGT	TCAACGATTT	GATATTCGGC	TACAAGTTCA	11580
TGGTCTTTGT	CGTCCGTATT	GACGATTTTG	CTGGTCACAT	GAGTTTCAAC	CTTGCCATGT	11640
TGTTGTTCTT	CAAGTTTGG	TGTTAAAATA	GTTGTCCCAT	TTTTCTCAAC	ATGCACCTTA	11700
TCTGTCACTT	GTAAAGTCAC	ATCACGATAG	ATACCACTTC	CTGAATACCA	ACGGCTACTT	11760
GGCTGTTTGT	TGACTGCATG	GACAGCAATC	ACATTCTCAC	GACCATCTTT	TTGAAGGTAT	11820
TTGGTGATAT	CATATGAGAA	CTGGTTATAA	CCATTTGGAT	AATGCCCCAC	TAACTGACCA	11880
TTGACATAAA	CTTGAGAATC	CATGTAGACG	CCATCAAAAG	TAAGGCGAAC	ATTTTCTTGT	11940
AGGTCTTTTT	CATCTAGTTT	GAAAGTCTTG	CGATACCAAG	CTTCCCCACC	GTTGAGCTGT	12000
CCACCTTCAT	TTTGTGCAGG	AGATTCATGA	TCGAAATCGT	TAAAGATACT	CCAGTCATAC	12060
GGTAAATCTA	ATTTTTTCCA	CGTAGATACG	TCTGCATCAG	GTTTAATGGC	TTCTTAGAA	12120
TTTGCATTGA	GTTTAAAGTA	CCAATTTTGA	TTAAAATCCA	CTTTCCTGTC	TTCAATCATT	12180
TGATTCACCT	CTTCATTTGT	TACAGCTTTA	GCATCTTCCT	TGAGCGGTTT	TTCTTGATTT	12240
GAAGCTTGTG	ATTCTATCCT	TGGAGCTTTT	TCTTCCGGTT	TAGCAGACAC	TTTTTCCTCT	12300
TTTGGAGTTA	CGGCTTCATC	TTCTTCTTTC	TCAGATGCAA	TAGCCTCAGT	TGAACTAGGT	12360



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TCAC TTTGTT	CTGTCCTTTC	AACTATATTT	TTAGTTTCCA	AAGCTTTATC	AGCCTTTTCT	12420
TCTACTATCA	TTTTTTCCTC	TTTAGGTTTC	TCAGCAGTAT	GAGTAATAAG	TGTTTCATCC	12480
GCATAAACTA	CAGATTCTCC	AGCTATATTT	CCTCCTAATA	AAACTGCACA	AGTCCCAATC	12540
ATTACTGAGC	AAGCTCCAC	AGCAAACCTTA	CGAATGCTAT	AAACTCTTTT	CCGATTCCAA	12600
TGGCCTTTCC	CCATAAAACC	CTCCTTATAT	TATATTTAGT	GCAGTTAGCT	ACTACCAAAG	12660
CCCAAGTGGT	ATACATGGTA	TGACAACCTA	GTTTCAACAA	TTTACACTCT	GCGAAAATCC	12720
AATTCAAAC	TCGTCAGTGT	CGCCTTGCCG	TAGATATGAT	TACTGACTTC	GTCAGTTTCA	12780
TCTACAACCT	CAAAACCATG	TTTTGAGCTG	ACTTCGTCAG	TTTCATCTAC	AACCTCAAAA	12840
CCATGTTTTG	AGCTGACTTC	GTCAGTTTCA	TCTACAACCT	CAAAACCATG	TTTTGAGCTG	12900
ACTTCGTCAG	TCTTATCTAC	AACCTCAAAA	CTGTGTTTTG	AGCAACCTGC	GGCTAGCTTC	12960
CTAGTTTGCT	CTTTGATTTT	CATTGAGTTT	ATATTTTATA	GGAGCGCATT	ATTTTGCTTT	13020
TGCTGCGTAC	TCTTCGTTAC	GTTTGATCAT	TTGTTTTCTG	TACCAAGCAA	AGATACCGAT	13080
ATAGAATACA	AGGAAGACTA	CTGCACCAAG	GATTGCTTTG	ATATCACCAG	TTGTAGTGTT	13140
ACCAATTGTC	CAACCAAGAA	GTTTTTCGAT	TGGTCCTTCA	AGAGTAGAGT	GAGTAATCAA	13200
TTGAGTTTGG	CTCACACCTT	CTGGGAAGGC	ACCTACACCT	TTAGCAAGTT	CTGTTGCAAA	13260
TGGTGCAATA	AGTGTAACCTG	AAAGAAGGAA	GAGTGGCAAC	AAGAGTGTTT	CGAAGATAAT	13320
CATACGGAGC	AATTTACCAC	GAGTTACAAC	CAAGAGAGCT	GGAGTAACAC	CCATAGCGAT	13380
GATACCTGCA	AGTGGCAAGA	TACCATTTC	AACTTTTGAA	AGAAGCACTG	CTTCAATCAA	13440
CATGATTGGT	GCAAGTACGT	TGGCACAAGC	CCAGATTTCA	GCACGACCAG	CGATGAATGG	13500
CCAGTCAAGA	CCGATATTGA	ATTTACGTCC	TTGAAGACGT	TTAGTAGCAA	CGTTTGTAAT	13560
ACCTTGATG	AGTGGTTCTA	CGGCTGCGAT	GAACCATGAA	CCGATAAGTG	AGAAGAGTTC	13620
CAAAGATACA	CCGGCAGTCA	AACCAAGAGA	CAACCATCCT	TTGATAACAA	GACGCCATTT	13680
ATCTGCATCT	GCAACACCTG	CAATTGGATG	TGGAGTTCCC	ATAATACCGA	TAACGATACC	13740
AAGGATGAAA	CCGATGAAGA	ATTTAGATCC	CCAGAAACCG	ATTTTCTTGT	TCAATTTAGC	13800
AGCATCAAAG	TCATATTTAT	CAAGGCCTGG	GAAGAATTTT	TCAAAAATCT	TATCCAAAAC	13860
CATGATAACT	GGGTTTATCA	TGTAGTTCAT	GTGAGTTGAT	GTCATTGGTG	ATGAACTTGG	13920
GGCGTTAAGA	AGGTCATCAA	ATGTAGGTTT	CATCAAGTCA	GAGTTGATAA	TTTTCAACAC	13980
ACCGACAAGG	ACGATAGCTG	CTGTAGCAAT	AAAGAGTGAA	ACCCCTTGAC	TCACACCATT	14040
GTTATCAGCA	TACCATTTAA	TCAAGAGACC	TGTGATAGAC	AAGTGCCAGA	TATCAAAGAT	14100
ATCGACATCA	AGTGATCTG	TTTTCTTCAT	AGCTAGCATC	ACTATGTTGA	CAATCAACAT	14160

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GATGAGCAAG	AAGTATAGTG	TCCAAGCAGA	ACCCCAAGTG	ATTGTAGCAA	GTGGTGCCCA	14220
ACCAACGTCG	GTAATACTCA	ATTGGATACC	AGTGTTTTCA	ACGAATTTTG	CTAGTGATGC	14280
TGAGAAAGCA	GTGTTTAGCA	TACCGATGAT	AGCACCGATA	CCTGTAAGAG	CGATGGCAAG	14340
TTTGATACCA	CCTTCAAGCG	CTTTGGAGAA	TTTCACTCCA	AAAAGTAAAG	CCAATACTGT	14400
CAAAATGATT	AACATGATGA	CAGGTCCACC	CATTTCTAAG	ATGGGATTGA	AAACCTTTCC	14460
GATTAGGTCA	AAGATTGCAT	CCATAACAGT	TCCTCCCTTT	TTGATGTTAT	ATGAATGTTA	14520
ACAAATTAGA	ATTAGCTTAA	TCCGTGTTCT	TTAATAGCTG	CTTCAATATT	GTCAAATACT	14580
GGAGCGCTCA	TTGCTGGGAT	ACGGAATAAG	ATTGGCCCAG	CTTCGATAAC	TGGGATACCT	14640
GGTTCAAAAC	CAAGGTCTGT	TGCAGCGATT	GGTGTAAGA	TATCGTAACC	TTTCATAAGG	14700
TCTTCGTTTA	CATCTTTCAC	CATGACTGCA	TCACAGTGAA	CATCATAACC	ACGGTTTGAA	14760
AGTTCTTCTT	CTAGAGCACT	TTTAATTTGG	TGACTTGAGT	TAACACCTGC	ACCGCAGGCA	14820
GCAAGAATTT	TAATCATTTA	GATTTCCCTCC	GATTTTATTT	TTTAATAGAC	AAGATTAAGC	14880
GGTTGCTTCA	GCAATGTAAG	TATAAAGGGC	TTCTGGTTCA	GAAATTTTTG	ATAGGTCTTC	14940
AAGATGACCA	TTTCCTGTGA	AGAAGTCCAT	TAACTGAGCA	AGAATGTTCG	TTTGACTTGA	15000
ACTTGAATTA	TTAATGATAA	AGAAGAGTAG	GGATACTTCT	ACTTCCTTAT	CAGGAGCTAT	15060
CATATTGTGA	AAAGTTATTG	GTTTTTCTAA	TCGAACAACC	ACCACTTTCT	CAGCTAGATT	15120
ATGAACAATA	TCTGTGTGAG	GAATCGCTAC	ATTTGGCAAG	TCCTTTCCTA	GAAATTCCAT	15180
ATCTAAACCA	GTTGGAAATG	ACTTTTCACG	CGTGATCAAG	GCTTCACGAT	AAGTTGGAGT	15240
GACAATTTCT	CGTTCTTCCA	ATAAAGTTGC	AACCTGATCA	AAGAGTTGTT	CTTGACTATC	15300
CGCTTCTAAG	CAAAACACAA	GGTTTTTGTC	AAAGAAATAA	TCTAATACCA	TAAGTTTTTC	15360
CGG						15363

(2) INFORMATION FOR SEQ ID NO: 140:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28882 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 140:

TAAGACTATT	TAATAGTGGA	GTGAAATAGG	ATACGAACAA	ATTGATTAGG	AAAATCAAAT	60
GAATTTATAG	AAATCTTTTA	GCAGTTATGT	TATCCTATTC	TAGTTTCAAA	ACGCTATAGA	120

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AGCAGCATTG	TGCTAGTCKA	GATTCAGTTT	ACTATACTAA	AACGAGTAGC	TTGAAATCAA	180
AAAACCCACC	CTCACAGGCA	GGTTTTATCT	GTATTATTCA	GCTAGATTAT	GCTTTACCTT	240
CTGAACCGAA	TACGTCGATA	CGTTCTTCAA	CCGATGCTTG	GATAGCTTTT	ACACCGTCAG	300
CCAAGAATTT	ACGTGGGTCG	AAGAGTTTTT	TCTTGTCGTA	TTCTGCTTCG	TTTGCTTCGT	360
AGTCACGAGC	AAATTTACGA	GTTGCGTTAG	CGAATGCGAT	TTGGCATTCT	GTGTTAACGT	420
TAACTTTGGC	AACACCAAGT	TTGATAGCTG	CTTGGAATTTG	CTCATCAGGA	ATACCTGATC	480
CACCGTGCAA	TACGATTGGG	AATCCTGGAA	GAGCTTCTGT	CAATTTTTCG	AAGTGGTCAA	540
GGTCAAGACC	TTCCCAGTTT	ACTGGGTAAG	GACCGTGGAT	GTTACCGATA	CCAGCTGCCA	600
AGAAGTCGAT	ACCAGTTTCA	ACCATTGCTT	TAGCGTCTTC	GATTGGAGCC	AATTCACCTT	660
TACCGATGAT	TCCATCTTCT	TCACCACCGA	TAGTACCAAC	TTCAGCTTCT	ACTGAGATAC	720
CTTTAGCGTG	TGCTTTTTTCA	ACAACCTCTT	TAGCCAATTT	AAGGTTTTCT	TCAACTGGAA	780
GGTGTGAACC	GTCAAACATG	ATTGAAGTAT	AACCAACTTC	GATACACTCA	AGTGCATCTT	840
CGTAGTGACC	GTGGTCAAGG	TGGATAGCTA	CTGGTACAGT	GATACCCATT	GATTCAACAA	900
GGTTAGCGAT	CAAGTTGCGA	GCAACTTTGT	AACCACCCAT	GTATTTAGCA	GCACCCATTG	960
AAGTTTGGAT	CAAAACTGGA	GCTTTTTTTAG	CTTCTGCTGC	GCGCAAGATA	GCTTGAGTCC	1020
ACTCAAGGTT	GTTTGTGTTA	AATCCACCAA	CTGCATAACC	GTTGTCACGG	GCTGCTTGGA	1080
CAAATTTTTC	TGCTGAAACG	ATTGCCATTT	TATCAGGCCT	CCTGTATATT	TTTATGGGTC	1140
ATCCCATTTA	CATTGTTTCA	TTTATCACTT	TTTGCCAAAA	AAATCTAGTT	TTTCCCGCAG	1200
TTTCGATTGA	TTTTCTTCTA	ACTCCATCTA	TGTAAACCCT	TTCTCTCCCT	AGTCTTGGAC	1260
GACTTTTGGA	AAATCTATAA	AGAAGGTTAA	ACTATTCTCC	TCCATCTCGA	AACGATAAGC	1320
TAATTTTTCA	TGTTCTAATA	GACTCTTAAC	CACAAAGAGC	CCCATAACCAG	ACCCCTTGAC	1380
CTTGCGACTG	GCATTGTCAG	AAAAAGACTG	GGCTAGTTTT	TCTTGTTTCT	CTGAGCTACA	1440
GCTATTTTCG	ATAAAAAGTT	CTCCTTCTCT	TTCTCCAATT	CGAACTAAGC	CACCTGGAAC	1500
AGAGTGCTTA	ATGGCATTGC	TGATGAGATT	AGAAAGAATC	AAC TTCATAA	CTGATGGGTT	1560
TAGATAAGCC	TGCTGATGGG	TCAAAC TATT	GTCTATCTGG	AGCTCTCTTT	CCTTGGCTAG	1620
CAAGGCATAA	TCTTTGACCA	GATTTTGCGT	CATCTGGAGG	AGGTCAATTG	TTTCCCTATC	1680
ATCTCGCAAT	TCCTGCACAG	AAGAGAGGGA	AAGTATCTGC	AGAACATGGT	GATTGAGTTC	1740
ATCCACAATC	CCCAAGGCAA	CTCCCAGATA	CTGGTCTCTA	TCCTTATAAC	GACCGATATT	1800
CTCTCTCATA	TTTTCGATTA	GGATTTTCAA	ACTAGCCAGC	GGTGT TTTTCA	ATTCATGAGA	1860
AGCTCCTCGT	AGGAATTCTG	CCTTCATCTT	CTCCAGCTGG	AGAATGGCTT	CATTCTTTTC	1920

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ATGCAAGTCC	GCAATAACAG	TCAAGAGATG	CTGGTAGAGG	CTATTGATTT	G TTCCTTGAG	1980
ATTACCTATC	TCATCCTTAG	AATCCACGCG	CAATCGCACT	TGGGAATCCA	GGTCCATCAT	2040
CCGACGGGTC	ACCCGCTTGA	TTTCCAAAAT	CGGTGCAACA	ATAGTCCGAG	CGTAGATGTA	2100
GGCCACCAAA	AGGGAAATCA	GAAAGGAGGC	CAGCAAGGTA	TAGGGAAGAA	ACTGGAGACT	2160
GATTTGCTCC	GCTTCCTTTT	GTAAATCCAT	GGAAGCTAGA	AACTGGAGAA	TCATAGTACC	2220
ACCGTCTTGC	GTTTTACCT	CGCGCTCCTC	AATAAAGAGA	GAGGTTGTCT	GGCGGTCTGT	2280
GTCCAGAGGA	AGACTGTCCT	TGACTTCTAA	CTTGTCCTCG	GTCATCTCAC	CTTTGACGGT	2340
CCCCTTGATA	TCACTAGTCT	GGGAATACAA	GTCTAACACT	TGCTCGATAC	TCTGCCTATC	2400
TTTCCCTTCT	AGGGACTGGG	CAATGGCTGT	TGCCTTTTGA	CCAATGGTTT	CCTGACGATG	2460
ACTCAGATAA	GTCGAAGGAA	AAAGAAAATA	AATAGCTAAA	TGAAGGCAGA	TAACCAGAAC	2520
ACTAAATATC	GAGAAGGTAT	AGATAAATAT	CTTTGCAAAT	AAACCTGTTC	GTTTCATTTT	2580
CGCTCCAATT	TATAACCAAC	ATTGCGCACA	GTGAGGATAC	AATCCAAGTC	TAGCTTTTTT	2640
CGCAATTCCT	TGATATAAAC	ATCAATAACA	CGGTCAAAGG	GAACCTCATC	TGTCGCTTTC	2700
CAGACGGCAT	CGATAATCTG	AGATCGAGTC	AAGGCCCGGC	CTTCATTTTT	CACTAGATAG	2760
TCCAGAATTT	CCAACTCTTT	GGCATTGATA	GGCACTTCTT	GACCTGCGAG	GCTTGCACTG	2820
TAGCTTTCAA	AGTCCACCTT	GGTATCCTTG	TAAGAAAAGA	TTCGTCCTGT	ATCGTAGTAG	2880
CGCTTGAAAA	TCGCGTCCAC	CCTCACTTTT	AAAAGGGAGA	GGGAGAAAGG	TTTTTCCAGA	2940
TAGCCATCTG	CCAAAGAGGC	AAAGGCACTC	ATCTTGATTT	CCTCATCTTG	AAAAGCTGTC	3000
AACATCAAGA	CAGGAACCTG	ACTGGTTTTA	CGAATCTCAG	CTAGGACTTC	TAAGCCGTTG	3060
AGCTTGGGCA	TCTGGATATC	CAGTAAAACC	AGGGCCACCT	CATAGCTAGA	AAATTGCTCC	3120
AGAGCTTCCT	GACCGTCCGC	TGCCTCAATA	GTTTCATAGC	CACAATCCGT	CAAATAATCA	3180
CTGACCCCCT	CACGGATCAT	CTCTTCATCT	TCTACAATTA	AAATTTTCAT	ACTTTAACTG	3240
CTCTCTATTT	TTTATTTTTC	TTAGAATAAA	TACCTACCCT	ATTTTCTATT	ATAGTCTCTT	3300
GCTGGCCTTT	TGTCTGCAAG	CAACTGACCA	CTAGATAAAA	CGTTGTGAAA	TTCTTTTCTC	3360
ATAAATCCA	TAACCTTAGT	ATATTATATT	TAAGCACTAA	AGTACAAAGA	AAGCAACTGA	3420
AAGCAATGAT	TTTCACCACT	GCTTTCGGAT	TTATTTTGAA	TTGTAAATA	GCCATTCCTA	3480
TCCACTATTC	TTGAATAGAA	ACACAAGATG	CAATCTTTAT	TCTAGACTCA	TTTTTTCAAA	3540
TTTATTCACC	ATCCAGCAAG	AGCTCTTTTG	GTGTTTTTCT	AAGGAGATTG	CTTGAAGCAA	3600
GCGCCATAAC	GAGAACCACT	AGAACCAAGG	CAAGGACAAA	AATGATGATA	AAGTCTGATG	3660



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TCTGAATGGA	AATGTCTAGG	CTCGACAAGG	TCTTGCTAAA	GCCATCTACT	TCTGCACCAC	3720
CACCAAGGTT	AGAGGCTTGA	GCCGCCTTAC	TAGCCTGTTT	GGCAACACCT	GAAGTCACAT	3780
TGGCAAGGAC	AGTGTTTCCA	ATTGCACGGG	CAGTGTAATT	AGCTAGGAAG	TAAGCAGAAA	3840
CTAGAGCAGG	GATAGCAATC	AAGATAGATT	CGGTGATGAA	TTGACCCAAG	ATACTTGCCCT	3900
GCTTGAGGCC	GATAGAGAGG	AGAATTCCCA	CTTCCTTGCG	ACGGGCGTTG	ATCCAAAGGC	3960
TGAGCAAGAG	GGCAAGGAGG	AGAACTGAGA	AGCTCAAGCT	ACCCCAGAAG	AGGAGGTTGG	4020
CCATCTTGTA	CATACCAGAG	ATAGATTGCT	CAAGAGCTGG	GTAGTTAGAG	GAGCTCTTGA	4080
CGAGTGTGTA	GCTCTTCCAG	TTGATACCAC	TGATGCCATT	CAACTCTTTC	ATAACATCAT	4140
CCAAGTTCTT	GTCTGCTGTT	ACAAAGAAGG	TTGCGTCCCC	ATAAATGGCT	GTGTCTTCTG	4200
TGTATCCATA	AAGTTTTGCA	GCAGTGTGAA	TGTCTGTAAT	AGCTGTGTTT	TCGTAAAGTT	4260
CTTGTGAGTA	GGTACTGCT	GACTTATTAT	GACCATCAAA	GAGTCCCTTG	ATTGTCACCT	4320
CAACTGTTTC	CTTGGCTCCT	TTTTCATTAT	CTGCATCGTA	GATATTAGAG	TCCAGTTTAA	4380
CCTTGTCCCC	TACTTTCCAG	CCGTGTTTGG	CTGCCAAGTC	CTTGTGCAAG	AGGATTTTAT	4440
CCTTGTGTC	GTTGGTTAAG	TGCTCTCCTT	CGACTAGTTT	ATAAGAACCA	GAGACAAACT	4500
TGTCTTCTTT	AGAGGAGTCA	TTGACACCTG	TAATCATCAA	GCTACTTCCA	AAACGCTTGG	4560
CACGATCAGC	AGTGAGATTC	TTCTTGTTTT	CTGGCGTTTC	AATCAGGTCA	TATCCAGTCA	4620
AATCTCCGAT	AGCGTTGATA	CGTTTGACAT	AAGACTCAAT	GGCCTTGTTT	TCGGTGATTT	4680
TTTTGATGTC	TTCAACCCTG	ATATTTCCAG	CACCACGAGG	CGTTCCTTGG	TTGACGCGAC	4740
GATTGATTTG	CATGGAGAAG	CTATTGGTGA	TATTTTAA	GGTCTCCTGA	GAAGCCTTGG	4800
CAGTAGCTCC	CTTGATTGAC	AAGCCGACCA	AACTCAAGCT	CGCCATGAGG	AGAATAATCA	4860
GGAAGATGAC	AATCGATTTG	AAAAACTTCC	TTGTAACATA	GGCAAATGCG	TTGTGTAACA	4920
TAGATTCCCT	TTCTAGATTT	TGTTTTAATC	ATTCTATTAA	AATAAGCTCA	AATTATTTAC	4980
TAGTATTGCG	CGTTTCAGTC	AGTTTCTTAT	CCTTTAATTC	AAGTGTAATA	TCTGACGCTT	5040
GTGCCACTTC	TTTACTGTGA	GTTACGACAA	TCACACATTT	ACCTGTTTTTC	TGGGCAAGTG	5100
ATTTGAGTAG	TTGACAATA	TCTCCAGCAG	TTTTAGGATC	CAGATTTTCT	GTTGGCTCAT	5160
CAGCTAGAAT	AACTGGAGCT	TCTGAGACCA	AACTGCGAGC	AATGGCAACA	CGTTGCTGTT	5220
GACCACCTGA	TAACTGGAGA	ACATTCCGCT	TGATCTGGCT	TTCATCCAAA	CCAAGCTCAA	5280
GAAGTGTATT	CTTGCTTGCC	TTTTTGTTGA	CCAATCGGAT	ATTTTCCAGC	GGAGAAAGAT	5340
AATCTATCAA	GTTATAATTT	TGAAAGACCA	GGGAAATATG	GTGCATGCGA	TGGTAAGAAT	5400
AGCCCTTCTT	ACGAATATCC	TCTCCTTGAA	AAAGGATAGA	ACCTTCAACA	GGACTATCTA	5460

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GACCAGCAAG	TAGGGACAAG	AGTGTGGATT	TTCTTGCTCC	TGACTCCCCA	ATAATACTGT	5520
AAAATTTTCC	GGGTTCAAAA	TTATAATTGA	TCTGATATAG	GACTGCTTCA	GCAGTATTCT	5580
TATAACGGTA	GGTAACATCT	TGTAATTGTA	ATAAAGTCAT	GATTTCTCCT	TCTTAACTAA	5640
TAGATGATAA	AATTTCTTTC	GGTGATTTTC	TAAATAAGAA	TAGGAAACAA	AGGGCTACAG	5700
ATAAGCAACT	AAGCAGAACT	AGAAAAACAT	AGGATTCTGC	AAAAGATAAG	ATGCTAGTTG	5760
ATAAACTGCT	TGCTTTGGCT	AGTGTATCTT	GTAAGCTTGC	CTGATCTCCA	CTTGCTAGTA	5820
GAGTTTGGAG	TAGGTAAGTT	GTGATTGCGT	TTCTTGCAAC	AAATGCTGGA	AGCAAAGCTC	5880
CAAGAGATAC	CAAAACTACC	TCTAAACAGA	ATTGTAGGAA	GATCGAGCTC	TTGCCTTTTC	5940
CAAGTGCAAG	TAAAATCCCC	ACTTCATAGA	CCCGTTCTCT	CAACCAGAGA	GACAAAACCA	6000
GAATTAAGGC	TCCAGCTCCT	GCTATCAACA	TCCCATAAAG	GAAGATGGTC	AGGAAGGTTT	6060
GGAAAGTTGC	AACTGAGTCT	TTGATTTGTT	CAAAAGCCTT	GTTTTTCCTT	TCGACTTGGT	6120
AGCCTTGATT	TTCCAAGGCC	AAGTTTTCTA	CCTGCTTCAT	GAGTCCGTCC	ATTTCTTTAG	6180
GATTTTCTAC	ATAGAAGCGT	GCTGCACTGA	CTTGAGCTTC	ACTATTGCCC	AAAAGGGTTT	6240
GGCTACTTTC	ATAGTCTGTA	AAGACTTGAT	TTTCACTGAA	GTCAGAAGAC	AAGCCTGTGA	6300
ATTTCTCTTG	TTTTTTACCA	GAAAAGATGC	CGATAATCTC	AAACTCTACT	GTTTGTCTTT	6360
TTCCAGATTC	AGACTGACCA	GCATCCAAGC	CAATCTTGTC	ATGAAGCGAA	AGACCGTTCT	6420
TCTTAGCCAA	TTCTTCGTGG	ATAAGGATTT	TCTTGGAATC	CCCTTTTTGA	AGGTGTCGCC	6480
CTTCTTTTAG	ATTGAAAGCC	GAAGTGGTAA	AGGTACATC	CTTGGAATGA	TCCTCAAGAG	6540
CCGTTAAGCT	AACCAAGTTA	TTGTCTGCAG	CTGATAAATC	ATCACGCTCC	ACGCTCTGCT	6600
CGCCAGTCAC	TGCTTCCTTG	TCTTTTAGTT	TTGCGACCGT	CTCAAGTTCA	GGAGAGACAT	6660
TTTCCAGCCC	CTTAATCTTG	CTTACAGATG	CTAGGTCTGA	CAACTTGAAT	GTCTGACCAT	6720
TCTCTATCTT	CTTAATAGAA	AAAGATGTAT	TGAGTGATTT	ATAAAGATTG	CTTTCTACTG	6780
TTTTGTTGGA	CTTCATCAGA	GTCAAACAGG	CTGAAATTC	GGCCAATAAG	ACCAATAAAA	6840
TCAGAAATAA	AATAAACTT	CTCAGTCGCT	TTCTGCTGAC	ATAAGCCCAA	GATCTTTGGA	6900
TTGGATTCAT	TTGTCACCTC	CATATTTGTA	AGACTATTAT	AAAACCCCAA	TATGAAATAT	6960
TTATGAAATA	CGAAAAAATA	ATATCGAGTA	GGGGATAATC	TCTAGCCCCCT	CTCACACCAC	7020
CATACGTGCC	GTTCGGCATA	CGGCGGTTCA	ACTAACTTTT	AACGCATGTC	GTTCAAGGTA	7080
ATAATCCAAA	CACGAAACCA	GTCCACGTTT	TTCAAGGACT	GGTTTTGATA	TAGCACGTTT	7140
AAGTACCGAC	TTCTGAGCTA	CTATAGTAGA	TTGAAACTAG	AATAGTACAC	CTCTACTTCT	7200

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AAAATATTGT	TAGAAATCGA	TTTGACTGTC	CTGAACAATT	CGTCCTATTC	TTATTTTCATT	7260
TTACTATAAT	TGATAGTGGT	CGCCCCAGCC	AGATACCTTA	TCTGCTATCC	ATTTAGGAAC	7320
CCCTAACTTA	AGCAATCCCC	ATAATCGTCT	CGATTTCTTC	TTCCATTGCT	TCCAGATAAT	7380
CACTCGTAGG	CGAGTACGCA	AGCGCTCATC	TATGCTAGTG	ACTATACTTT	TCATATTTAT	7440
AATTCATTCC	TTTCGTTTCA	CTCAAGGCAC	AACACAGAAT	GAAAAAGTGT	TGTGATCTTT	7500
ATTTTGTTTT	ATAATAATAG	TGAGAAAACC	TATCACTACT	ACAAATCACG	GGGAGGTGAA	7560
TAAGTGAGTG	GTACAGCCAC	TACCTCGCAT	ATTTTGTCAC	ATCATTTAAC	GGTACATAAT	7620
AAGTTGTACC	ATCTGAATAA	GTTGCTACAA	TATCATTTGC	ATGCTCTCCT	TCACCTTTAG	7680
CAAAGGTTGG	AGCTCCTGCT	GGATGATTTT	TATTTGCCTC	TTTCAATTTT	TCAATAATGG	7740
CATTTTTTCT	GTATCTTTTA	TATTATCAGG	ATTTTTCACT	AAGATTTTGT	CTGGATATGT	7800
CGGTTTAGCA	GAAACAATTT	TTACTGTTAC	TTCTTTTTTA	TTCGAAGCAC	TTGTCCAGTT	7860
TCCAGCATT	TCTTTAGCAT	TTAATTTTAC	AGTAATTCCT	GAAC TAGGAA	CTTCAGTAGC	7920
AGGTTGATTA	TCAACATTAT	TCAACTTTAA	TTTCAAAAGA	GCTGTTGCAT	CAGACGTTTT	7980
ATCAATCGTT	ATATATAATG	ATGAATTGTT	ATTATAAACA	GTTCCCTTCAT	ATTTAGCTGT	8040
TTGTGAGCTA	CTTGAAACAG	AACTGAAATT	ATACCCACTA	CCTCCCTGAT	TATCTTCAAT	8100
GCTTACGTCT	AAATGAACTT	CCCCACTATT	ATTTGGCTTA	GCAACAACTG	TTATAGTAAA	8160
ATAACATAAA	ATTTGCATAA	ATAGATTAGG	GAAATCAAAG	CAGCTTCTAG	GAATGTTTTA	8220
GCAGTCACAG	TGTACTTTCC	CAGCATCAAG	CCACTATAAC	TCTGCACATA	AAAATGGAGA	8280
AGATGGCAAT	CCTCTTCTCC	AAATATTAAC	TTCTTTACAA	ACCAACTATA	GTTGACAAAG	8340
AACCTAAAAT	CAATTGATAA	CACAAGGTCA	GGTCGGTCAA	CTCTTTCAAC	TGAAGCCCTG	8400
TCAACTCTTC	CCATTTATCA	ATCTTGATTT	GGAGAGAATT	GCGGTGCAGA	TAGAGTTGCT	8460
GGGCTGTTTT	AGTGAGAACA	GCACTATTTT	CCCAAAGAGA	GAGAATGATT	TCCTGAATCT	8520
GATCTTGATC	CAAAATCATC	TGGTGTAGAC	ATTCCTTGAT	TGGCTTCAAG	TCCACGAGTC	8580
TTTCTCCCAT	ACTCCAAAGA	TAGAGCTGAG	AAAAAGTATG	AACACCTTGG	TGACCCTGAC	8640
GCCACCATGT	CTTGAACAAA	TCCCGCTCAG	CTTTGATTAA	GTCTGATAGG	GCTTGATGTC	8700
CCGTCTGAGA	CCAAACCTGA	CCCAACATGA	TAGAAAGACG	AAGTCCAAAG	TCATACTCAA	8760
CCGCTTCAAT	CGTATCACTT	AAAATATCTC	TTACAGAAGT	GTATTTGTCT	TGTTGAAGCA	8820
CGAAAACATA	ATCCTGAGCT	CCGACCTGTA	GCACTGTCTG	ACAATTCGGA	AAAAGAGTCC	8880
GCATCATATC	TAGCCAAGAA	GCCAGATTTT	CCTGCTGAAA	ATAAGAAAGA	TGGCAATAAA	8940
CCAACCTGAAT	CTTTTAAAAA	ACTTGCGGTG	CCTGTCCCTT	GCCCTCAACC	AGATAGGAAT	9000

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ACCAAGGGTT	TAGCGAACGA	GCCTGCTCCT	GCTGGGTCAA	AAGGGCAACC	AACTGCTTTT	9060
CACGCTCGCT	GAGCCCAGCT	TCCTCCAGCA	AAATCCACTG	CTGAGAAGCT	AAAGGGAGCG	9120
TGAGATAGCC	CTCTTTCTCT	ACTGGTTGGT	CTGAAATCCG	AGCCTCAGGA	AACCAGTCTT	9180
GTAGTTCTTT	TGCCCTCATG	TTCTAGCCCT	CCACTTTTTG	GATGCACCAT	GAAACCAAAC	9240
TCTCAAGACG	TTCCAGATTC	TCAGTCATAT	GGAGATAGCC	CATAACCGCT	TCAAATCCCCG	9300
TGGACATACG	ATAAGTCACG	ACATCTGCAT	TTTTAGCCTT	TGTGTGGCTA	TTGGTATTGC	9360
GGCCACGTTT	GTAGATTTCT	TCTTCTTTTT	CCGTTAGGAC	CTGCTCCTCC	AACATGAGAG	9420
CAATCAGGCG	AGCCTGAGCC	TTGGCTGACA	CGTACTTAGT	TGCTTCTTGA	TGGAGTTTAT	9480
TGGGTTTGGT	CATACCTTTG	AGGATGAGGT	GACGGCGAAT	ATACATAGAA	TACACCGCAT	9540
CCCCCTCAAA	GGCTAGCGCA	ATCCCGTTAA	TGAGATTGAC	ATCAATCACG	TGTCCACCTC	9600
ACTCCATCCT	TGGTATCAAG	GAGCTTAATT	CCTTGAGTAA	CCAATTGGTC	ACGGATTTGG	9660
TCTGCTGTCG	CAAAGTCACG	ATTGGCACGC	GCCTCTTGGC	GTTTTTGAAT	CAAGTCTTCA	9720
ATCTCTGCAT	CCAAAAC TTC	CTCAACAAAG	ACAATTCCAA	AAATTTCTAA	CATATCTGCA	9780
AGAGCTTGCT	TGACACTTGC	ATCATAGTTC	CCTGAGTTGA	TCCATTTGGC	CATTTCAAAG	9840
ACAACTGTGA	TACCGTTGGC	AGCATTA AAA	TCTTCATCCA	TAGCTGCTAC	AACTTATCT	9900
TTAAAGTTTT	GTA ACTCTTG	GGCATCCACA	TTTCCTGTAA	ATGGTTGTTT	GTAAGTATTC	9960
TTGAGATACT	TGAGATTGGT	CTCGGCATCG	CGAACTGCCT	TTCCCGTGAA	GTTGATAGGC	10020
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GCATCGTGTA	CCGTAATGAA	GTTACCCAAG	GACTTAGACA	TTTTGACATT	GTCGATATTG	10140
ACAAAGCCAT	TGTGCATCCA	G TAGTTAGCA	AAAGCCTTGC	CTGTTTTAGC	TTCAGACTGG	10200
GCAATTT CAT	TGGTGTGGTG	TGGAACTCT	AGGTCAGCTC	CACCACCGTG	GATATCAATG	10260
GTATCACCTA	AAATCTCTGT	CGACATGACT	GAACACTCAA	TATGCCAACC	CGGACGTCCA	10320
GGTCCCCAAG	GACTATCCCA	AGAAATCTCA	CCTGGTTTGG	AAGATTTCCA	TAGAGCAAAG	10380
TCTACAGGAT	TTTCCTTACG	AGCCGTTTCT	TCATCGGTAC	GACCTGAAGC	ACCTAGCTCC	10440
AAATCTTCCA	AGGTTTTATT	AGCCAATTTA	GCATAGTTGT	GGGATTTTTT	TACACGGAAA	10500
TAGACATCCC	CTTGACTCTC	ATAGGCAAAG	CCTTTCTCGA	TCAAGTCTTC	CACAAAACGG	10560
ATGATGTCTG	CCATAAACTC	CACTACACGC	GGATGGCGAG	TCGCAGGTTT	CACGCCCAAT	10620
GCCGTCACAT	CCTCACGAAA	GGCAGCGATG	TACTTATCCG	CAACCTCCTG	AGGCGTGATA	10680
CCTTCTTCCC	TGGCACGGTT	GATAATCTTA	TCATCCACAT	CTGTAAAATT	GGAAATATAG	10740



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GCAACCTTAT	ACCCACGGTA	CTCAAAATAG	CGACGAATCG	TATCAAAAGC	TACCGTCGAA	10800
CGGGCGTTTC	CTACGTGGAT	ATAGTTGTAC	ACCGTTGGCC	CACAAACATA	CATCTTGATC	10860
TTGCCGTCCT	CAATCGGGAC	AAATTCTCGC	AAATCACGAG	ACATGGTGTC	ATAGATTTTA	10920
ATCATAAATC	ATAATCAGGA	AAGCTGAAAT	CCAAGAACAA	TTAGTTTCAT	CACTAAAAGT	10980
TCAAGTAAAT	TTCAGTCCGA	ATATCTCTAC	ACTTCGGAAT	CCCTTGCTCC	TTTCTCATTC	11040
AGATAAACCA	CCTGAGTCTG	TTTGACAAAG	CCAATTTTTT	CATACAAACG	TTTGGCACCT	11100
ACATTGCTAT	CTTCCACTGC	AATCTGAAAT	TCCTTGTCAT	TTTGCTCAAT	TAGTTGGTTG	11160
ACGAGGGATT	TTGCTAAGTA	GCTTCCATAG	CCTTTTCCAC	G TTCAGGTTC	CAATATTGCT	11220
AAACCGTAGA	GGTAATTCGT	ATTAGTCGAT	AAATCAACCG	TACAAGTTCC	AATAACCTGA	11280
CCAGCTTTTA	ATAAAATATA	TAGTCGGCTT	TCTGGATCTT	TCAGAGCTTC	AGCGACATAT	11340
CTATCCACAA	CTTCTCTCGA	TTCATGTTCC	TCTGAAAATG	CCTGAAATTT	TAATTGACTA	11400
ATTTGATCCT	GATACGAACT	ATCTGCTAAC	AAAAC TTCAA	GATGGGAAAC	ATTTGCTAAC	11460
GGATAAGGTC	TTCTATCCTT	ACCTAACCAA	GTTTCTGTCT	CTTCATCCTC	GATTAGTCCC	11520
CAGTTACTGG	CAAAGTCAGG	ATGATTCTCT	AAAAAAATAC	GTTCTGTCTG	AAAAGTGA CT	11580
GACCGAATGG	GGAAAGAAGC	TGTTTCTCTC	TCAAAACTAG	TAAACAATGC	ACGCGCAATC	11640
CCCTGACGGC	GATGACCTGG	ATGAACCAGT	ATCGTCACTT	CTACATCTTG	GTCATCTGCA	11700
TAGACAGTTA	ATAAACCAAC	AAGTTCGCCT	TTTTTCATAAT	AAAGGAAAAA	GGCGGGCATG	11760
TTTGGGTCAA	AATTAAGCAT	GTTAGAGAGA	TAGGGATCGC	GATAGGTACC	GTCATAGTTT	11820
TGGCAACAGT	TAATTACTTT	TTTCGCCTCA	GATAGCTCCT	CTTGGCTTAA	CTTGTTTCTT	11880
GCTTGAATCA	TATAGGTATC	CTCTACAAAC	CAGACGATCT	GTGACTGGCA	TCTTTAGCCT	11940
GCTCGAGTTT	ATTGACATAA	TACTCTCGTT	TTTCTTCGAC	TTCTGTGAATG	ACAGGCTCAT	12000
CTTTCTTACC	ATGAAGACGG	ACAATCTTGG	CCGGAATACC	GACAACCGTC	ACGTCAC TAG	12060
GTACATCTGC	TACGACAACT	GCTGCAGCAC	CGACCTTGGC	ATTTTTCACCA	ATTTCCACAG	12120
GCCCGATAAC	TTGGGCATGG	GCTGATATGA	GGGCTCCCTT	TCGTACAGTC	GGATGGCGTT	12180
TGCCACAGTC	TTTCCCTGTT	CCCCCGAGAG	TCACTCCGTG	ATAGAGAAGA	ACGCCTTTTT	12240
CAACAATCGC	TGTCTCTCCA	ATCACCAGAC	CAGAACCATG	GTCAATAAAA	ACACCTGAAT	12300
CAATCTGGGC	TCCTGGATGA	ATCTCAATCT	GAGTCCAAAA	GCGCCAAAAC	TGACTGTACA	12360
TACGAGCTAA	TAGTTTGAAG	CCGTGCTTCC	AGAGAAAATG	CGAGAGACGG	TGGGCCGCCA	12420
AGGCCTTGAC	ACCTGGATAA	GTCAGCAAAA	CCTCCAAAGT	GGTGCGGGCC	GCTGGATCAT	12480
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TCTCGATACG	AACGACTTTA	GCACGGTAAA	CTTCATCCAC	TTTGGCTTCA	CGAACCAAAC	12900
CAGCAATAAT	TTCTTTGGCA	CGGTAAATAG	CATCTTGGTC	ACTAGAGTAG	ATAGACACAT	12960
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CTCCACCCTT	ACCGATGACA	ATCTTAATCT	TGTCCACATC	AATCTTGATC	GTATCAATTT	13080
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TATTTCCATC	TGAGATAAGC	CCCATAGCAA	TACCAGCTAC	TGGCGCCTTG	ATTGGCACAC	13380
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ATTCCAAAAC	TTCTGCTACT	AGACGGATAG	CGTAGGGGAA	TTCTTCCAAG	CTTGGAAGA	13500
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CGTAACGACC	TGTTTCCCCT	ACAGAATATT	GAGGGAAGTT	ATAGTGGTGC	ATAAAGCGTT	13620
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GGAAGTCAAC	AACCGCATCC	AAAGGACGGA	TTTCATCGAC	CTTACGACCA	TCAGGACGCA	13800
CCTTGCTCTC	TGTAATTAAA	CGTCGCACTT	CTGCGTGTTT	CATTTGTTCC	AAGATTTTCA	13860
CCACATCACG	CATAATACGG	TCAAATTCTT	CGTGGTCCGC	ATATTTTCTT	TCGTAAACGG	13920
CAGTCACTTG	GTCTTTCACT	ACTTGAGTCG	CAGCTTCACG	GGCCAATTTT	TCTTCTACTT	13980
GAAGTGCCTT	TTGGAGGTCA	CTGTTGTAGG	CTGCAATGAT	TTCAGCTTGC	AATTCAGCAT	14040
CCACGTGAAG	CAATTCCACT	TCTGCTTTTT	CTTTACCGAC	AGCAGCAACG	ATTTCTTCTT	14100
GGAAGGCAAT	CAATTCTTTG	ACAGCTTCGT	GCCCTTTAAG	GAGCGCTTCC	AACATGATTT	14160
CTTCTGACAA	TTCTTTGGCA	CCAGACTCTA	CCATGTTGAT	AGCGTGCTTG	GTTCCAGCTA	14220
CTGTCAATTC	AAGAAGAGAT	TGCTCTGCTT	GTTCTTGACT	TGGGTTGATG	ATGATTTGGC	14280

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CATCTACATA	TCCCACCTTGT	ACCCCAGCAA	TTGGTCCGTC	AAATGGAATA	TCTGAAATAG	14340
ACAGTGCCAA	AGATGAACCA	AACATAGCAG	CCATTGGTGC	AGATGCATTT	TCATCATAAG	14400
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TCATAAAGCC	ACCAGGAAAC	TTCCCAGCCG	CATACATTTT	TTCTTCGTAG	TTGACTTGGA	14580
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ACTCACCGTA	ACGTACGACA	ACAGATCCAT	TTGCTTGCTT	AGCAACCTGA	CCAGTCTCTA	14700
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CAAAGTAAAA	ATAGGAAACT	GACGAAGTCT	TCGATGAAGA	CAAGACAGTT	TATCTTTTTT	14880
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GTATCTAAAG	CTTTCACGCT	AATCGCTATC	GGGCGATTAG	CTAAATGCTT	TACTAACTCT	15240
CTCGTCAAAT	AACATCGATT	TGACTCACTC	GTGTCGTAA	ATCTTACAGT	TTAAATGCAT	15300
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TTTCTTAAAA	AGTGAGGTCT	TTACCATTAA	AAAGGAACCA	TTCCCCTCAC	CTGAGAAGAA	15420
TGGTTTGCTT	TTATTATCCT	AGAGACTGGT	GATTAAACAA	GGCATGGGTT	GCTTGATGGA	15480
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AAGTCTTCAA	GAGTCGGAGA	GCCTGATTTT	GATTCAGAAT	TGGCATAATT	CCTGCATGAA	15720
TGGGAACATC	AATCCCAGCC	AAGATACACT	TGTCCTGAAA	ATCATAGAAG	CGCTCATTTG	15780
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GAAGAAGTGA	GCAAGAGCTT	GTCAAAACGA	TGTTTTTCAGC	TGGAATTTGC	TCAAGAACAG	17700
CCAAGCTCTT	TTCGTAGTTG	TTGCGCCAGA	TGTTTTTACC	ATTGACAATA	CCTACATAGA	17760
GAGTCTTGTC	AGCTGGGAAG	CCACCTTTAA	CGAGTTCAAG	AGTTTTCTTA	CCTTCAACAA	17820



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AGTCAAGACC	GATAGCATCT	ACTGGTAAGT	TTACAAGGTC	AGCGTATACG	TCACGAACAT	17880
CACCGAAATA	AGTTTGAAGC	AAGACTTCAA	GACCTTTTTT	GTCAGCCAAG	AGTTTGTTGT	17940
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TTACTCCCAA	TAGCACTATT	CTTCATCACT	TAACCCTCTT	TTTTTTACGT	CTATGTATTT	19200
TTAAAAAAT	GAGCGAATTA	TGATTCGATA	GATTGACCAG	TGGGTTTAAA	GTTGGTGCTA	19260
GCCTATTTCT	TAAGCGATTT	TCCTTTTCTA	GGATAAAGCA	GTTCTTGCTT	GCTTAACCCC	19320
AATTTTCCAC	GATGAATCCA	ATAGTAAATG	GTTGAAATTC	CCACGTTAAC	CCCTTTAGCC	19380
ATCACCATCA	TTTCAGGCGA	AAATTTTTGG	TTATGTTTTT	GGTTATGTAT	AGTGGAGAAT	19440
CTTTTCCTTT	AGTTTCTTAA	GACTGTTGAG	CGTAGTCGGC	AGAATAAATC	TCTTTGAAGC	19500
GCCCTTTTCC	AAGACATTGT	CGGACTGTCC	CACGCTTGAT	TTCAGTGTGG	ATAGTTTGAG	19560
GAGCTTTTCC	AAGTAGAGAG	GCAATTTCTC	TATTTGATTT	TCCTTCTTTT	TTCCATCGTT	19620

CGATTAAGCG	ACGGCTATCG	ATTGTCAAAT	GTTTGCCTTT	TGTAGTATAA	TTGTCTTGCA	19680
TTTCTGTGCC	TTTTAATCAT	TTCAATCTTA	AATTGGACTT	TTTTTACTTG	GGTTGTACTT	19740
AATCTATGAG	GAAGACAAGA	AAAAGAATAT	CAATCAAGTA	AAGTCACAAA	GTCACATTAG	19800
CTCCGAGCAA	CCATTGCAAA	TTGAGGTACT	CACACAATGA	TTAAAACATT	TCTCTCTGCC	19860
CTTTCGGTCA	TTCTCTTTTC	TATCCCTATC	ATAACTTATT	CTTTTTTCCC	ATCTTCTAAT	19920
CTTAACATTT	GGCTATCTAC	CCAACCTATC	TTGGCACAGA	TTTATGCCTT	CCCCTTAGCT	19980
ACTGCAACTA	TGGCTGCTAT	TTTAAGTTTC	TTATTTTTTT	TCCTATCTTT	TTACAAGAAA	20040
AATAAACAAA	TACGGTTTTA	CTCTGGCATT	TTGCTCTTAC	TATCGCTCAT	ATTACTATTA	20100
TTCGGAACAG	ATAAAACCCT	TTCTTCTGCA	TCAAATAAGA	CTAAAACCTT	AAAATTAGTA	20160
ACTTGGAACG	TCGCTAATCA	AATAGAAGCA	CAACATATTG	AGCGAATTTT	TAGCCATTTT	20220
GACGCCGATA	TGGCTATATT	CCCTGAACTA	GCTACCAATA	TCAGAGGTGA	GCAAGAAAAC	20280
CAGAGAATCA	AACTATTGTT	TCATCAAGTT	GGACTTTCTA	TGGCCAAC TA	TGATATTTTC	20340
ACTTCTCCAC	CTACCAATAG	TGGAATAGCT	CCTGTGACTG	TGATTGTCAA	GAAAAGTTAT	20400
GGTTTCTATA	CAGAAGCTAA	AACTTTTCAT	ACAACACGGT	TCGGGACAAT	TGTATTACAT	20460
TCGAGAAAAC	AAAATATACC	AGATATCATT	GCCTTGCATA	CTGCGCCTCC	TCTGCCAGGT	20520
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CCAAAGGCTA	TTATTGCAGG	TGATTTTAAT	GCAACTATGC	GTCATGGAGC	ACTTGCAAAA	20640
ATAAGCTCTC	ATAGGGACGC	ATTAAATGCA	CTGCCACCTT	TTGAAAGAGG	AACTTGGAAT	20700
AGCCAAAGTC	CAAACTTTT	TAATGCAACA	ATAGATCATA	TTTTATTGCC	TAAAAACCAC	20760
TACTATGTTA	AAGATTTAGA	CATTGTAAAGT	TTTCAAAACT	CTGATCATAG	ATGTATTTTT	20820
ACAGAAATCA	CATTTTAATT	ATTTTATATA	AAATCACCCC	TCTAATGTTC	ATAAACTAGA	20880
GGGGGAATTT	GTATCCTACT	ATCGTTTAAC	GCACTTCTGC	ATTGACTTTT	TCTTCGAGAG	20940
ACGCTTGAT	TTTTTCCATA	TAGCGTGCGA	CTTCTTCGTC	CGTTAAGCTG	TCTTCTGGAT	21000
TTTGGAAGGT	CAAGCTATAA	GCCATTGACT	TCATACCAAG	TCCCAGTTT	TCACCTGAGA	21060
AGACGTCAAA	GAGTTTGATA	TCTGTCAAAC	GTTTCACGCC	GGCAGCTTGG	ATAGCATCTA	21120
CAACTTCTTG	GTGAGTCACT	TCTGCCTTGA	GGAGAAGGGC	AACGTCACGG	CTGACTGCTG	21180
GGAATTTGGT	GATTTCCACA	AATGGAACAG	CAGGTTGGAG	CGCCCCCTCG	ATGGCTGAAA	21240
GGTTAAGCTC	AGCTACATAC	GTTTCTGGAA	TATCGTAAGC	CTTGGCAGTG	ACTGGATGCA	21300
CTTGCCAAG	GAAACCAAGA	ACTTGGTCAC	CGAGTGAAAT	CACGGCTGTA	CGACCTGGAT	21360

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GAAGGCTAAC	GATTCAGAT	GTTGCTGTAT	AGGTTACTTG	GAGTCCCAA	CGAGTAAATA	21420
GGGCTTCAAG	GATTCCCTTA	GCATAGAAGA	AATCAACTGG	AACTGCTGCT	GTTTGGAAT	21480
CTTTTTCAGC	AACCAAGCCT	GTCAAGGCAA	AGGCAAAGCT	GTTGATCTCA	TTTGGAAGTT	21540
CTTCTTTTGG	ATTACCTGTT	TGTTCAAAGA	CTTTTCCAAT	CTCATAAAGG	GCCAAGTTTT	21600
TATTCTTACG	AGCCACGTTG	TAGGCAACGG	TATCAAGGAT	CCCTGAAATC	ATATTTTGAC	21660
GGAGGACTGA	ACGATCCACA	GTCATTGGCC	ACATGAGTTC	AGTAAGGTTA	CTTGGTTGAG	21720
CTGTGAACTC	AACTGCTTTT	TCAGGAGTTG	TCAGAGCATA	GGTGATGATT	TCTGTCAAAC	21780
CTGCTCCTTC	AGCAATGGTA	CGAACTTGAC	GGCGGAGTTT	TTGTATCACA	GTCAATTCAC	21840
CAGCTGTACC	ATCGTCTTTT	GGAAGGCTGG	TTGGCAAGCG	GTCATATCCA	TAGATACGAG	21900
CGATTTCTTC	AAAGAGATCA	GCTTCGATTG	TGATATCCCA	ACGACGACGT	GGTACGCTGA	21960
CTGTAAAGCT	GTCTGCATTT	CCAGAAAGAC	CAAAGCCAAG	ACGACGGAAG	ACGTCTTCTA	22020
CATCAGCATA	AGACAGCTCA	GTTCCGAGGA	CACGGTTAAC	ATCAGCAAGG	GTGAAGAAA	22080
CTTCCACATC	AGAGGTATCA	AGCTCACCCG	CTGAAACGAT	ACCCTTACGC	ACCGTCGCGC	22140
CTGCAAGCTC	TGCAATCATG	CTAGCTGCCG	CATCAAGGGC	TTCATTAAC	GTTGCCACAT	22200
TAATTCCTTT	TTCAAAGCGA	GAAGATGACT	CAGAACGAAG	G TTCAGGCGA	CCACTTGTCT	22260
TACGGATAGA	TTTGCCATTA	AAAACAGCAG	CTTCAAGGAT	AACACGACTA	GATTTTTCAG	22320
AAATTTCTGT	AGCCTGACCA	CCCATAACAC	CGGCAAGGGC	TACTGGTTTG	TCAGCAACTG	22380
TAATCACGAG	GTCTGTCTCA	GCCAAGTCTC	GTTCTTCACC	GTCCAGGGTC	ACTAATTTTT	22440
CACCATCACG	CGCTTCACGC	ACACGGATGT	CAGTCCCTTC	AAATGTGTCC	AAGTCAAAAG	22500
CATGCATAGG	TTGACCAAAG	TAGAGCAGGA	TGTAGTTTGT	CACGTCTACA	ACGTTATTGA	22560
TGGGACGGAT	GCCTTCGTTC	ATGAGAAGGT	TTTGCAACCA	TTGTGGACTT	GGTGCGATAG	22620
TCACATTGTC	CAAGATACGA	GCTGCATAGT	AAGGCGCCTT	GTCTGTCTCA	ATGCTGACAG	22680
AAAGGGCATC	TGCCGCAGCT	TCATTAGTTT	CTGTTAGAGT	AAATTTTTTTA	AAGTTGACTG	22740
CCTTGTCATA	GATGGCTGCC	ACTTCGTGAG	CCACTCCACA	CATAGAAAGG	GCATCTGCAC	22800
GGTTTGGTGT	GATGGAAAGT	TCGATGATTT	CATCATCCAA	GTCTAGGTAA	GAAAAGACTT	22860
CCTCACCTGG	CACGGCATCT	TCAGGCAAGA	TTTGGATGCC	ATCTGCGAAT	TCCTTAGGCA	22920
CAACTGAGTC	AGAAATTCCC	AATTCACCAA	GTGAACAGAT	CATTCCAAGT	GACTCCAAAC	22980
CACGGATTTT	TCCTTTTTTTG	ATTTTGTAGT	TATCAGCGAT	ACGAGCTCCT	GGAAGAGCCA	23040
CCATGACCTT	GATCCCAGCA	CGCACATTTG	GGGCACCACA	AACGATCTGA	CGCTCTTCTT	23100
CTTCGCCAAC	GTTAATCTGA	CAAACATGGA	GGTGAGTCTC	TGGCACATCT	TCGCAAGACA	23160

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AGACCTCACC	GACGACAATT	TTTGAGAGAC	CAGCAGCTGG	TGATTGACA	CCCTCTACCT	23220
CGATCCCTGT	AGTTGACATT	TTTTCAGCCA	ACTCTTGTGA	TGGCACATCA	ATGTCCACCA	23280
ATTCTTTTAA	CCATTTATAA	GATACAAGCA	TAATTTAGTT	CTCCAGAATG	ACAGTTGTCA	23340
CTCTAGTTCT	TTTCCTTTCC	TATCATTTCA	ATAGAAGAAT	CCTCTTCTTA	CCTTAATTTT	23400
TTTCTCAGTA	ACCAATCCGT	ATCTACTTTT	TGACCAACCA	TAAAATGATG	TTGGCTAAAT	23460
TTTTCAAAAC	CATATCGGTT	ATAAAACGCT	TGAGCTTTTG	TATTATGCTC	CCAAACACCT	23520
AGCCAAGCCC	AAGAAAAACT	ATTTTTTGTA	GCAAGTTCAA	GTGCGAATTC	AAACAGTTGC	23580
TTACCTAGTC	CAAATCCTTG	GAATTTTTGT	AGCACATAGA	GACGTTGAAT	TTCAAAAGCG	23640
TCCTCTAATT	CTCTCTCAGT	TTGAGCACTT	CCCCAGTTGA	CTTTGAGAAA	ACCAGCTATC	23700
TCCTCCTCAT	GCATAATGAA	ATAGGTTTCA	GAGTCAGGAT	TTCCCAACTC	AGTTGACAAA	23760
GTTTTCAGAC	TATAAGCCTC	TTCAAAGTAT	TCCTGTAACT	GCTCTTCCGT	ATTATCATAC	23820
GCAAAGGTTT	CACGAAAGGT	TTGTTTGGCA	ATTTTAGCCA	ACACCTCAAC	ATCTGCCATT	23880
TCTACTTTTC	TAATCATTAT	TTAAACTGTT	CTGAGAAGCG	GACATCTCCT	TGGTAGAATC	23940
CACGGATATC	GTTGATTCCA	TAACGGAGCA	TAGCTACACG	CTCTTGTTCA	AGACCAAAGG	24000
CAAAGCCAGA	GTATACAGTC	GCATCGATAC	CACTCATTTT	AAGGACACGT	GGGTGAACCA	24060
TACCGGCCCC	CATAATTTTC	ATCCAACCTG	TTTTCTTACA	TACATTACAG	CCTTCTCCAC	24120
CACACTTGAA	GCAAGAAACA	TCCACCTCAA	CAGATGGCTC	TGTGAATGGG	AAGTAAGATG	24180
GACGCAAACG	AATTTGACGC	TCTTCACCAA	ACATTTTTTG	GACAATCAAC	TGAAGCGTTC	24240
CTTGAAGATC	AGCCATAGAG	ATATTTTTTC	CAACTACCAA	GCCTTCGATT	TGGTGGAATT	24300
GGTGACTGTG	GGTCGCATCG	TCCGTATCGC	GACGGAAGAC	ACGCCCTGGC	GAGATCATCT	24360
TCAAAGGACC	TTTAGAAAAA	TCATGGGCAT	CCATAGCACG	CGCCTGAACT	GGAGACGTGT	24420
GGGTACGGAG	CAAGATTTCT	TCAGTGATAT	AGAAAGTATC	CTGCATATCA	CGAGCTGGGT	24480
GGTCTTTTGG	AAGGTTTATA	CGTTCAAAGT	TATAGTAGTC	TTGCTCCACT	TCAAAACCAT	24540
CCACGACTTG	ATAACCCATA	CCGATGAAGA	TATCTTCGAT	TTCTTCACTG	GTTTGTGTCA	24600
AAACGTGACG	GTGACCAGTC	GCAACTGGAC	GACCTGGAAG	CGTCACATCT	ATACTCTCGC	24660
TAGCCAGTTG	AGCCGCGACT	TTCTTTTCTT	CCAAGAGCTT	AGCTGTTTCT	TCAAAAGCAG	24720
CAGTCAAGAC	ATCACGAGCT	TCATTGACGT	GTTTCCCGAT	GATTGGACGC	ATCTCAGCAG	24780
AAACATCTTT	CATCCCTTTG	AGGATTTTCA	TGAGCGAACC	CTTTTTTACCA	AGGACAGAGA	24840
CACGCAAATC	TTGCATCTCT	TTTTCATTTT	CAGCAGTAAT	CTGCTTCAAG	CTAGCCAGCG	24900



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TTTCTTCGCG	AAGCGCTTTT	AATTGTTCTT	CAATAGTTGA	CATATTTTCCT	CCATCAGTCT	24960
CTCGTAGATA	AAAAGAAAAC	CACATGCCAA	AAACTCCACT	CGGAGCGTTG	ACACGCGGTA	25020
CCATCCGTTT	TCATCTGACA	AGTCAGACCT	TCATTTCTAA	ATCCATGCGC	AAGTGAATTC	25080
ACCCAGCTTT	CATATAGAGA	GCTTGCAGTC	ACGGCTCTCC	TCCCTGATAT	ACTTCCCTTG	25140
GGCTACTAGT	CTTTCAGATT	CCTATTCAAT	TACTACTTAG	TTTATCAGAT	TTTTACCATT	25200
CTTGCAAGAC	CTATCTTACT	TCTGCTTGTT	AGCTTATTCT	TATCTAAATT	TATATAAACc	25260
TTATCTAAAT	TAAC TATTTA	TAATTTTTGT	AACAAAATTA	AATTAATTGA	CACTCCCCTA	25320
TAAAATAAAG	AAGTTTAGAA	TTTAATGTCT	TCCAAACTTC	TTTATTCCAT	ATTTAATGAA	25380
ATGCCACCTT	AACCGTGATA	ATAGCTAGTC	ATCAATAAAA	AACTATTTGA	ATAAGGATTC	25440
TCCATTTGAT	TCAATCACTT	CTTTATACCA	AGTAAAAGAC	ATTTTCTTAT	ATCGATTTAA	25500
TGTACCACTT	CCATCATCGT	TTCGATCAAC	ATAAATGAGA	CCGTACCTTT	TAGAAAGTTG	25560
TGCAGTGGAC	ATAGAAACAC	AGTCAATACA	TCCCCAAGAC	GTATAGCCCA	TAATTTCAAC	25620
ACCATCCTGT	AGAGCTTCAG	CAACTTGCAA	TAAATGTTCT	TTCATATACT	GAATTCTATA	25680
ATCATCTTGG	ACGGTTAAGT	TATTAAGTTC	ATCTTTTATT	AGTTGATCTT	TAGCACCTAA	25740
TCCATTTTCT	ACTATAAATA	ATGGGATTTG	ATAACGGTCA	TAATATCTAT	TTAAAATTAT	25800
ACGTAGTCCA	ATTGGATCAA	TTTGCCATCC	CCACTCTGAA	GACTCTAAAT	AAGGATTTAC	25860
TAAACCACCA	ATAATATTCC	CTTCTCCTGA	ATTATACTGT	GTTGGAAGAG	CAGATTGAGT	25920
CACACTCATG	TAATAGCTAA	AGGATAAAAA	ATCTACGGTA	TAATTTTTTA	ATAACTCTGC	25980
ATCTTCAGCT	GCAAAC TCTA	TGTTAATGTC	ATTTTCCTTA	AAATATCTTT	TTGCATAATT	26040
CGGATAATAA	CCTCTAACAT	GCACATCTGA	AAATAGATAA	TTTAGATTCT	CATACTCATG	26100
AGTCGCCCCAT	ACATCTTTTG	GATTTGGAGT	CATTGGATAA	GCTGGCATAG	CTAATACCAT	26160
ACATCCCACC	TTAAACTCTG	AATTAATCTC	ACGAGCAATT	TTTGTAACCA	AACTTGAGGC	26220
GACTAATTCA	TGATGTATAG	CTTGATATAA	TTCTTGTTTC	GAAAGATTCT	CCTTAGGTAT	26280
ATCTATTCCT	CCACTAGTAA	ATGGTAATTC	CAAAACAGAG	TTTACTTCGT	TAAATGTAAG	26340
CCAATATTTA	ACTTTATCTT	TATACCTTTC	TAAAACTGTT	CGAGCAAATT	TTTCATAAAA	26400
ATGAATCATT	CTCCTATCAA	CCCATCCATG	ATATTTTCTT	GCTAAATATA	ATGGAGTCTC	26460
ATAGTGTGAA	AGAGTTACAA	GTGGTTCTAT	CCCGTGAGCA	TGTAGTTCAT	CAAACAATTC	26520
ATCATAATAT	TTCAACCCAG	CTTCGTTAGG	TTCTTCCTCA	TCTCCTTTTG	GAAAAATTCT	26580
ACTCCATGCA	ATAGAAGTAC	GAAAAACATT	AAAGCCCATT	TCAGAAAACA	AGGATATATC	26640
TTCCTTATAT	TTATGATAAA	AATCAATACC	TATCAATTTT	AAGTTATCTT	CTGTAGGATT	26700

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TTCTGTTGCT	TCTCCTAATC	CACCTTTGGG	TAACACATCC	TGAACTGATA	AGCCCTTACC	26760
ATCTTCATTA	TATGCTCCCT	CTACTTGATT	AGCTGCAACA	GCTCCACCCC	AAAGAAAATC	26820
ATCTGGAAAA	ATGGTCATAA	CTTTCCTCCA	TTATAATATT	ACCAGTAATT	CCTTAGAATG	26880
CTCGATTGTC	TGATTATTAG	GTAATACTAA	TACATCTAGA	AAATCATTGG	TATTCGTTAC	26940
AATTACTGGT	GTAAGTGTTC	CGTAGCCTTT	AGTCTTGATT	AAATTCAAGT	CCATTTCAAA	27000
AATCAACTGA	TTTTTGAAAA	CTCTGTCTCC	TTCTTCTACA	TGACTAATAA	AACCTTGACC	27060
TTTTAGCTCA	ACAGTATCTA	ATCCAATATG	AATTAGTAAC	TCAACACCCT	CATCACTCTT	27120
CAATCCAATT	GCGTGCTTAG	TCGGAAAAAT	ATTTGTAATT	TTCCCATCAA	ATGGTGCATA	27180
AACCTTACCT	TCACTTGCGA	TAATCGCTAC	TCCGTCTCCA	ATTAGTTTAT	CTGAAAATGT	27240
TTTATCCTGG	ACATCGCTTA	ACGGAATGAT	TTCTCCTGAT	ATAGGAGAAA	ATATCATTTT	27300
TTTATTTGAA	ACTCCAGCTT	CAACTTCTAA	ATTGCTAGAA	CTCTCTTCTT	CATCGATTCC	27360
AAATATATAA	GCTAATACAA	AGGTAATAAC	AACCGAAATG	ACCGCCACAA	TTAAAGCATT	27420
TACAATATTT	GATGGCACAT	CAGAATAAAT	AAATTGAGGC	AACGCTATCA	AAGATGGGAC	27480
AGCAAATAGA	TATGCTTTAA	CACTAGTAAG	ACCTGCAAAT	AATCCCGCTA	ATCCACCACC	27540
AATCATAGCT	GCATAAAGCG	GTTTTTTTATA	TTTTTAAAGTC	ACACCATATA	ATGCAGGTTT	27600
GGTAATCCCT	GCAAGTAAGG	CTGAGAAACC	TGCTGCAAAA	GCAATTTGTT	TTGTATTATT	27660
ATTTTTTACTC	TTTAATGCAA	CAGCCATCGA	AGCAGCCCCCT	TGAGCTAAGT	TTGACCCTAA	27720
CATTGCTGGA	AGAATTAATA	CGTCTGGAGT	AGCAATAGAT	GCCGCCAAAA	AAATAGGTGC	27780
AAAAGCCCCA	TGCATTCCAG	TCATAACAAT	AAATGGCATA	ATAGCACCAA	GAATAGCTAA	27840
TGTAAGCCAT	CCAGCTACAC	CATACATTTG	CCCAACTAGA	TTTGATAATC	CTTCACCAAC	27900
AATTACTCCA	ATAGGTCCGA	CTACAACATA	GGCAATACAG	CTTGATACTA	ATAATACTAG	27960
CGTAGGTTGC	AAAAAACTCT	TAGTAATAGC	TAGTGTTAAT	TTAGCAATTA	TTTTTTCAAT	28020
ATATTTTCATC	AACCAAACCA	TAATAAGAAT	TGGAACGACT	GATGAACCAT	AACTAGCTGG	28080
TGTCACAGGT	GCACCAAATA	AACTAAGAGG	ATTCCCTGAT	TGCACCATTT	GAACAAAATT	28140
TGGATGGAGA	AGTACACCTG	CTACAGACAT	AGCTAATGTA	GATGTTACTT	TTAATTTTGT	28200
TGATGCAGAA	TAAGCTAATA	ACAGCGGTAA	GAAATAATAT	GGAGCATCCC	CAAAAAATGT	28260
CAAAAAAGCA	ATAGTCTGAG	AATCTGATTG	CAATATACCA	AGCATTTGTA	AAATGATTAC	28320
CAAGACTTTC	AACATACCTC	CCCCTAACAT	TGCTGGAATG	ATTGGAGTCA	TGGAACCAGC	28380
GATATACTCA	ATGATTCTTT	CTAAAATATT	CCCTTTGTGC	CCTTGAACAA	CTGAATCGGA	28440

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TTCAAAATTG CCAAGTTTAA CGAATTCTTT ATAATAATTA GCTACATCAT TACCAAGTAT	28500
AATTTGATAT TGTCCATTCT TTTTCATAAT ACCTATTACA CCTGGTATCT TCTTCACATC	28560
ATCATCATTG ACTAAATTTT CATCTTTTAA TTCTAATCTT AAACGTGTTA CACAATGGGT	28620
AACTCTATTG ACATTTTTTT CACCTCCAAT TACATCGAGG ATTTTTTGTA CCGTATCTTT	28680
ATAACTCATG GTATTCTCCT ATTCTATTAA TCTAAATTTT TTGTTAAGCG ACGAATATGA	28740
GCCATCAAAT AACTAATTC ACTAGAAGTC AGCAAATAAT TGTACTCCGT TTGTATAAAC	28800
ATTGCTACCT GTTCACCACA TTCATATTCT CTAGGATATT TATTTTTTCAT TAATGCTAAC	28860
AAGTCTTCAT CATCATCGTC GG	28882

(2) INFORMATION FOR SEQ ID NO: 141:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12835 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 141:

GCCTATGTCT TTTTCAAAAA AATGCTTGAC TTGAGACGGG AACTAGGGAA GTCTAAAGGC	60
GGAAGGCATT GATTTATACT CTTGAAAAT CTCTTCAAAC CACGTCAACG TCGCCTTGGA	120
TTATATATGT AACTGACTTC GTCGATGCTT ATCTACAACC TCAAAGCAGT GCTTTGAGCA	180
ACTTGCGGCT AGTTTCCTAG TTTGCTCTTT GATTTTCATT GAGTATTATA TTACTTTCTA	240
TTTGTAGGAG GTGGCTTATG AAGATTCCTC TCTTAACTTT TGCAAGGCAT AAATTTGTTT	300
ATGTCTTGCT TACTTTGCTT TTTCTTGCTT TGGTTTATCG TGATGTTTTG ATGACTTATT	360
TCTTTTTTGA TATTCATGCG CCCGATCTAG CTAAATTCGA TGGACAAGCA ATTAAAAATG	420
ACTTATTAAA ATCAGCATTG GATTTTCGTA TTCTCCAGTT CAATCTAGGT TTTTATCAAT	480
CATTTATTAT TCCAATCATC ATTGTTTTGC TAGGTTTTCA ATATATTGAG CTGAAAAATA	540
AAGTTTTACG ATTGAGTATT GGAAGAGAAG TGAGTTATCA AGGGTTAAAA AGAAAGTTGA	600
CTTTGCAAGT TGCAAGTATC CCTTGTTTGA TATATTTAGT GACTGTGCTG ATAATTGCAA	660
TTATAACCTA TTTCTTTGGG ACTTTTTCTC CTCTTGATG GAATTCTCTA TTTTCTGATG	720
GAAGTGGTTT ACAAAGACTC CTAGATGGAG AGATAAAAAG CTATTTGTTC TTTACTTGTTG	780
TCCTACTAAT CGGTATTTTC ATCAATGCAA TCTATTTTTT ACAAATAGTT GATTATGTGG	840
GGAATGTGAC TCGTTCGGCA ATCACCTATT TGATGTTTCT TTGGCTTGGT TCTATGCTGC	900
TTTATAGTGC CTTGCCTTAC TATATGGTTC CTATGACGAG TTTGATGCAA GCTAGCTATG	960

GGGATGTAAG	TTTGATGAAA	CTCTTTACTC	CTTATATCCT	TTATATTGTC	CCTTACATGG	1020
TGCTTGAAAA	ATATGAAGAT	AATGTTTAAG	AATTTTAACA	ATATTTTGCT	AAATAGAAAG	1080
ATTGTTTAC	TACTTCGTAT	AGTTCTGATG	ATGATTTTGA	TAAACCATCT	ATTGTCAACA	1140
GCGGTTCAAA	AGCAGGATGC	TGTTATCTTT	TTCAAGAGAG	AATTGATTTC	AATTTTTC	1200
TATAATGACT	ATTCTGAAGC	GAATTTAGAA	ATCCCCAAAC	TATTGTTAAA	CCTTTCGCTT	1260
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CACTTGATTC	GCTATCAATC	AAGCTCCTTT	TTGATTATA	CAAGGAAACG	ATTGGTTGTC	1380
ATTTCTAAAT	TTTTTACTCA	AGATTTGTTT	GTCTGGTTTC	TTGGTTTACT	TCCTCTAGGA	1440
ATTCATTTCA	AAACAGTCGC	ACTTTTCTTT	TTACTTGCTC	AGTTAATGAT	GTTGTACTTA	1500
CTACTGTCTT	ATCTGATAGC	ACTGATTAGT	GCGGGCGCTG	GTTTTTCCTT	TTTTCTCTAT	1560
TTTTTAGCAT	TTGTGGGACA	AGAATGGATG	ATGGATCATA	TTGTAACAGT	GTATTTAGTA	1620
CTCTTAAGTT	TATTAGTTAT	GTTGATTGTT	AGTCGCTTGG	AAGAGAAATT	TAAGAAAGGA	1680
TAAACGATGA	GACTTGAAAT	TATAAATGGA	CAGAAAATTT	ATGGGAAAAG	ACCTATTTTA	1740
AATCAGTTGA	ATTTGGTGTT	TCAATCAGGA	AAAATTTATG	GACTTAAAGG	TGATAATGGA	1800
TCTGGCAAGA	CGGTTCTTTT	AAAGATACTT	GCTGGTTATA	TTAAGCTTGA	CAAAGGAAAA	1860
GTTCTTCAAG	ATGGTAAAGT	TTACGGGGTA	AAAAATCATT	ATATTCAGGA	TGCAGGAATT	1920
TTAATTGAAA	AAGTCGAGTT	TTTATCTCAT	TTATCCCTGA	GAGAAAATTT	GGAAGTGTTA	1980
AGGTATTTTT	CATCTAAAGT	TACGGAAAAA	AGAATTGCCT	ATTGGATTCA	ATACTATGAT	2040
TTACAGGAAT	TTGAAGACAT	TGAATACCGT	CATTTATCCT	TAGGAACAAA	GCAAAAAATG	2100
GCCTTGATTC	AAGCCTTTAT	TTCTCTCCT	TCTATACTCT	TTCTCGATGA	ACCTATGAAT	2160
GCTTTGGATG	AGAAGAGTGT	GAGGTTAACC	AAACAGGTCA	TTTTATCTTA	CCTGAAAAAA	2220
GAAAATGGTC	TGGTTATCCT	GACGTCGCAC	ATATCGGAAG	ATATTTCAGA	CCTTTGTACA	2280
GATGTATTAG	TTGTCGAAAA	TGGACATATA	CAAATGTAAA	GGATATACAA	TCCTAGGAGA	2340
TGGCTTATGG	CACATCTAAA	ATCATTTATT	ACACGATATT	CCAAGGTTTA	TATTGGTTTA	2400
GTTCTGCTGA	TCTGGCTGTC	TTTCTTCTTT	ATCCCTTGGG	ATAAACCCT	TCTGGGGATA	2460
AGGATTGACA	TCTTCATCAT	ACAGAAAATC	TTGCTAGCTT	TTGGAATTCT	GTCCATTCTC	2520
ATGGCCTTGC	TGTCCAAGAA	AGTCAGTCTC	TTTGTTTTTG	GACTGATTTG	CTGTCTTTCT	2580
CTTTGGATTA	ACTTATTTAT	CACATTTGCC	ATTTTGCCGA	TTTTTGCAA	TTAAACAGTC	2640
ATAAAAGTCG	GAGAGGTTAG	CTTGAAAAC	AACCTCTTTT	TCCTTTTCAA	AATGGGGATT	2700



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CTTCCTTGAA	AATAATCAGT	AATTGTGCTA	AAATTAAAGG	AACATTCTAA	AATATTCGGA	2760
ATTTAAAGTA	AGGAAAAACA	TGGCTAATAT	TTTAAAAACA	ATTATCGAAA	ATGATAAAGG	2820
AGAAATCCGT	CGTCTGGAAA	AGATGGCTGA	CAAGGTTTTTC	AAATACGAAG	ACCAAATGGC	2880
TGCTTTGACT	GACGACCAAC	TAAAAGCAAA	AACAGTTGAA	TTTAAGGAAC	GTTATCAAAA	2940
TGGAGAATCA	CTGGATTTCAT	TGCTTTACGA	AGCATTTGCG	GTTGTCCGTG	AAGGTGCCAA	3000
ACGTGTCCTA	GGTCTCTTCC	CTTATAAGGT	TCAGGTCATG	GGGGGGATTG	TTCTTCACCA	3060
TGGTGACGTG	CCAGAGATGC	GTACAGGGGA	AGGGAAAACC	TTGACTGCGA	CCATGCCGGT	3120
ATACCTCAAT	GCCCTTTCAG	GTAAAGGGGT	TCACGTAGTT	ACGGTTAATG	AATACCTGTC	3180
AGAACGTGAC	GCGACTGAGA	TGGGTGAATT	GTACTCTTGG	CTTGGTTTGT	CAGTAGGGAT	3240
TAAC TTGGCT	ACCAAATCTC	CAATGGAGAA	AAAAGAAGCC	TATGAGTGTG	ATATTACTTA	3300
CTCAACTAAC	TCAGAAATCG	GATTTGACTA	CCTTCGTGAC	AACATGGTCG	TTCGCGCCGA	3360
AAACATGGTA	CAACGTCCGC	TTAACTATGC	CTTGGTCGAT	GAGGTTGACT	CTATCTTGAT	3420
TGACGAGGCT	CGTACACCTT	TGATTGTATC	AGGTGCCAAT	GCGGTTGAAA	CCAGTCAGTT	3480
GTATCACATG	GCAGACCACT	ATGTA AAAATC	TTTGAACAAA	GATGACTACA	TCATCGATGT	3540
GCAGTCTAAG	ACTATTGGTT	TGTCTGATTC	AGGGATTGAC	AGGGCTGAAA	GCTACTTCAA	3600
ACTTGAAAAC	CTCTATGACA	TCGAAAACGT	GGCTTTGACT	CAC TTTATCG	ATAACGCCCT	3660
TCGTGCCAAC	TACATCATGC	TTCTCGATAT	TGACTATGTG	GTGAGCGAAG	AGCAAGAAAT	3720
CTTGATTGTC	GACCAATTTA	CAGGTCGTAC	CATGGAAGGT	CGTCGTTATT	CTGATGGATT	3780
GCACCAAGCT	ATTGAAGCCA	AAGAAGGTGT	GCCAATCCAG	GATGAAACCA	AGACATCTGC	3840
CTCAATCACG	TACCAAAAACC	TCTTCCGTAT	GTACAAGAAA	TTGTCTGGTA	TGACGGGTAC	3900
AGGTAAGACT	GAGGAAGAAG	AATTCCGTGA	AATCTACAAC	ATTTCGTGTTA	TTCCAATCCC	3960
AACAAACCGT	CCTGTTCAAC	GTATTGACCA	CTCAGACCTT	CTTTATGCAA	GTATCGAATC	4020
TAAGTTTAAA	GCGGTTGTCG	AAGACGTTAA	GGCTCGTTAC	CAAAAGGGTC	AACCTGTCTT	4080
GGTTGGTACA	GTAGCGGTTG	AAACTAGTGA	CTACATTTCT	AAGAAATTGG	TTGCAGCTGG	4140
TGTTCCCTCAC	GAAGTCTTGA	ATGCCAAAAA	CCACTATAGA	GAAGCCCAA	TCATCATGAA	4200
TGCTGGTCAA	CGTGGTGCCG	TTACCATCGC	AACCAACATG	GCGGGTCGTG	GTACCGACAT	4260
CAAGCTTGGT	GAAGGTGTTC	GTGAACTTGG	AGGACTTTGT	GTTATTGGTA	CAGAACGTCA	4320
TGAAAGTCGT	CGTATCGATA	ACCAGCTTCG	TGGACGTTCA	GGTCGTCAAG	GAGATCCAGG	4380
TGAGTCACAA	TTCTACCTAT	CTCTTGAAGA	TGATTTGATG	AAACGTTTTG	GTTCTGAACG	4440
CTTGAAGGGA	ATCTTTGAAC	GCTTGAACAT	GTCTGAAGAG	GCCATTGAGT	CTCGCATGTT	4500

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GACGCGTCAG GTTGAAGCAG CTCAGAAACG TGTCGAAGGA AATAACTACG ATACCCGTAA	4560
ACAAGTCCTT CAATACGATG ATGTCATGCG TGAACAACGT GAGATTATCT ATGCTCAACG	4620
TTACGATGTC ATCACTGCAG ATCGTGACTT GGCACCTGAA ATTCAGTCTA TGATCAAACG	4680
CACGATTGAA CGTGTCGTTG ATGGTCATGC GCGTGCCAAA CAAGATGAAA AACTAGAGGC	4740
AATTTTGAAC TTTGCTAAGT ACAACTTGCT TCCTGAAGAT TCTATTACGA TGGAAGACTT	4800
GTCAGGCTTG TCTGATAAGG CCATCAAGGA AGAGCTTTTC CAACGTTCCCT TGAAGGTTTA	4860
CGATAGTCAG GTTTCAAAAC TACGCGATGA AGAAGCAGTT AAAGAATTCC AAAAAGTTTT	4920
GATTCTACGA GTGGTGGATA ACAAGTGGAC AGATCATATC GATGCCCTTG ATCAATTGCG	4980
TAACGCGGTT GGACTTCGTG GCTATGCTCA GAACAACCCT GTTGTTGAGT ATCAGGCAGA	5040
AGGTTTCCGT ATGTTTAATG ATATGATTGG TTCGATTGAG TTTGATGTGA CACGCTTGAT	5100
GATGAAAGCA CAAATTCATG AACAAGAAAG ACCACAGGCA GAACGTCATA TCAGTACAAC	5160
AGCGACTCGC AATATCGCTG CTCACCAAGC AAGTATGCCA GAAGATTTGG ATTTGAGCCA	5220
GATTGGACGC AATGAACTTT GCCCATGTGG TTCTGGTAAG AAATTTAAAA ACTGTCACGG	5280
TAAAAGACAA TAAAATGAGA TAGTTTAGAG GCGGATATCT TGTGAAAAGT AAATTTTAC	5340
TGGGTATCCG TTTGCTTTAT AAGGAGATGA GTTATGGTAT TTACAGCAA AAGCTCTAAA	5400
ATAAATATAG AAGAAGTTCG TGCCTTGTC A AATTAGAAG GTCAGGCTTT GGAGAGGAAA	5460
TCACAGCGAG ATCAAGAGCT AGAAGCCATT ATACGTGGAG AAGACCAGCG AATTCTCTTG	5520
GTAATCGGGC CATGCTCATC TGACAACGAA GAAGCTGTCC TTGAATACGC TAAGCGTTTG	5580
GCAGTCCTAC AAGAAGAAGT GGCAGATCGT ATCTTTATGG TTATGCGTGT TTATACTGCC	5640
AAACCCCGTA CCAACGGAGA TGGCTATAAG GGCTTGATTC ACCAGCCTAA CGCGACAGAA	5700
GCGCCTAGTC TTATCAATGG AATCAAAGCC GTTCGCCATC TTCACTATCG TGTCATCACA	5760
GAAACAGGGA TGACAACTGC TGATGAAATG CTTTATCCTG AAAACCTTCC GCTTGTAGAT	5820
GATTTGATTT CTTACATGGC AGTTGGTGCC CGTTCAGTTG AAGACCAGCA ACACCGCTTT	5880
GTGGCAAGTG GGGCAGGATT TTCTACTGGT TTTAAAAATC CAACCTCTGG AAATCTCAAT	5940
GTCATGTTTA ATGGGATTTA TGCTGCTCAA AACAAACAAA GTTTCCTTTT CTTAGGAAAA	6000
GAAGTAGAAA CAACTGGGAA CCCGCTTTCA CACGCTATTC TTCGTGGTGC TCTTAATGAG	6060
TATGGAAAAA ATATTCCCAA CTACTATTAT GACAATTTAA TTGATACCAT TGCCCAGTAT	6120
GAGAAAATGG GCTTGGAAAA TCCTTTTATC ATCATTGATA CCAATCATGA CAATTCTGGT	6180
AAGCAGTATA TTGAACAGAT CCGAATTGTC CGCCAGACCT TGATTAACCG TGCTTGGAAT	6240

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GAAAAAATTA	AGCAGTTCGT	TCGTGGTTTT	ATGATTGAGT	CTTATCTGGA	AGATGGTCGA	6300
CAAAATGAGC	CAGAAGTATT	TGGTAAGTCT	ATCACAGACC	CTTGCCTGGG	TTGGGATAAC	6360
ACAGAAGCTC	TTGTCAGAGA	AATTTACAAA	ACGTTAGGAG	AATAAGATGG	CATTTATTGA	6420
AAAAGGTCAA	GAAATCGATA	TGGAAGTCAT	CAAGGCTGAA	ACCCAATTGT	CTGCGGAAGC	6480
CTTGAGACTC	AAGGAAAGCC	GTGACAGGGA	ATTGGCAGAT	ATTATTTTCA	GGGAAGATGA	6540
CCGTATTCTC	TTGGTGATTG	GTCCTTGCTC	TTCTGATAAT	GAAGAGGCGG	TCTTGGAATA	6600
TGCTCGCCGT	TTATCTGCCT	TGCAAAGAA	GGTAGCGGAT	AAGATTTTCA	TGGTCATGCG	6660
CGTGTATACT	GCTAAGCCTC	GTACCAATGG	AGACGGCTAT	AAAGGATTAG	TTCACCAGCC	6720
AGATACTTCT	AAGGCTCCAA	GCCTGATTAA	TGGCTTGCAG	GCTGTGCGCC	AGTTGCACTA	6780
CCGCGTGATT	ACAGAGACTG	GTTTGACAAC	GGCAGATGAG	ATGCTTTATC	CGTCAAATCT	6840
GATCTTGGTG	GATGACTTGG	TCAGCTACCA	TGCCGTTGGA	GCTCGTTCTG	TGGAAGACCA	6900
AGAGCACCGC	TTTGTGGCTT	CTGGGATTGA	TGCACCAGTA	GGGATGAAAA	ATCCAACCTC	6960
AGGAAATTTG	GGTGTTATGT	TTAACGCCAT	CTATGCTGCT	CAAAACAAGC	AAACCTTCCT	7020
TTATCATGGG	CAGGAAGTTG	AGACATCAGG	TAATCCTTTG	GCCCATGTTA	TCCTCCGTGG	7080
AGCAGTCAAC	GAGTATGGCA	ATTATATGCC	GAATTACTAC	TATGAAAATC	TACTCCAAGC	7140
CATTGAACGC	TATGAAACCA	TGGGACTTGA	AAATCCTTTT	ATCCTCATTG	ACACCAACCA	7200
TGATAACTCA	GGCAAGCAAT	ATATGGAGCA	GATTCTGAATT	GTTCGCCAGA	CCTTGCAGAA	7260
TCGTGATTGG	AATGAGAAAA	TTAAAAAGAC	GGTTCGAGGA	TTTATGATTG	AATCTTACCT	7320
AGCAGATGGT	CGTCAAAACC	AACCAGAGAT	CTTTGGTTGC	TCTATTACTG	ACCCTTGCCCT	7380
AGGTTGGGAA	AATACAGAGG	CCTTGGTAGA	AGAGATTTAT	GTTACCTTGA	CAAAATAAGT	7440
GAAAAGGATG	GAGTTGGGGA	ATCTCAACTC	CTTTTGATGA	GAATGATAGT	TGGACACGGA	7500
ATTGACATCG	AAGAATTGGC	TTCGATAGAA	AGCGCAGTTA	CACGACATGA	AGGATTTGCT	7560
AAGCGTGTAC	TGACCGCTCA	GGAAATGGAG	CGCTTCACCA	GTCTCAAAGG	ACGCAGGCAA	7620
ATAGAATATT	TAGCTGGTCG	CTGGTCGGCT	AAGGAGGCCT	TTTCCAAGGC	TATGGGAACG	7680
GGCATTAGCA	AGCTCGGTTT	TCAGGATTTG	GAAGTCTTGA	ACAATGAACG	TGGGGCGCCT	7740
TATTTTAGTC	AGGCACCATT	TTCAGGAAAG	ATTTGGCTGT	CTATCAGCCA	CACCGATCAG	7800
TTTGTGACAG	CCAGTGTCAT	TTTGGAGGAA	AATCATGAAA	GCTAGTCCAC	ATAGACCAAC	7860
CAAGGCTCTG	ATTCATCTGG	GAGCTATTCT	ACAAAATATT	CAGCAAATGG	GGGCTCATAT	7920
CCCTCAAGGA	ACGCTCAAGT	TGGCTGTGGT	TAAGGCCAAT	GCTTATGGTC	ATGGAGCTGT	7980
TGCCGTTGCC	AAGGCAATTC	AAGATGATGT	TGATGGCTTT	TGCGTTTCCA	ATATCGATGA	8040

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AGCCATTGAA CTCAGACAAG CTGGACTCAG CAAGCCAATC CTCATTTTAG GAGTTTCTGA	8100
AATCGAAGCT GTTGCTCTAG CTAAAGAATA TGACTTCACC TTGACAGTGG CTGGACTGGA	8160
GTGGATTCAA GCACTCTTAG ATAAGGAAGT GGACCTAACT GGATTGACAG TCCACCTCAA	8220
GATTGATTCA GGGATGGGAC GGATTGGTTT TAGAGAGGCA AGTGAGGTTG AGCAGGCTCA	8280
AGATTTGCTC CAACAACACG GTGTTTGTGT TGAAGGAATC TTTACCCACT TTGCTACTGC	8340
TGATGAGGAA TCAGATGACT ATTTTAATGC CCAGTTAGAA CGGTTTAAAA CTATTTTAGC	8400
TAGTATGAAG GAAGTTCCAG AGCTGGTTCA TGCTAGCAAT TCTGCAACGA CTCTTTGGCA	8460
TGTAGAGACT ATTTTCAATG CGGTTCGTAT GGGAGATGCC ATGTATGGCC TCAATCCAAG	8520
TGGAGCGGTC TTGGATTTGC CTTATGATTT GATACCGGCC TTGACCTTGG AGTCTGCTCT	8580
GGTTCATGTC AAGACAGTTC CAGCTGGAGC TTGCATGGGC TATGGAGCAA CTTATCAAGC	8640
GGATAGCGAG CAAGTCATCG CGACCGTGCC AATCGGGTAT GCAGATGGAT GGACAAGAGA	8700
CATGCAAAAT TTCTCTGTCT TGGTAGATGG CCAAGCTTGC CCAATTGTCTG GCAGGGTTTC	8760
GATGGACCAA ATCACTATTC GATTGCCTAA GCTTTATCCG CTAGGAACCA AGGTAACCTT	8820
GATTGGCTCC AATGGGGATA AGGAAATCAC TGCAACTCAG GTAGCGACCT ACCGCGTAAC	8880
CATTAACATAT GAGGTGGTTT GCCTCCTCAG CGACCGTATT CCGAGAGAAT ATTATTAGAA	8940
AAGAAAGGAG TGGAGCATGA ATCTACATCA ACCCTTGCAT GTCTTGCCTG GTGTGGGACC	9000
AAAGTCAGCA GAAAAATACG CCAAAC TAGG AATTGAAAAC TTGCAAGATC TCTTGCTCTA	9060
CTTTCCTTTC CGTTATGAAG ACTTCAAAAC CAAGCAGGTG CTGGAGCTGG AAGACGGTGA	9120
GAAGGCAGTT CTTTCTGGTC AGGTAGTGAC TCCTGCTAGT GTCCAGTATT ATGGTTTCAA	9180
GCGCAATCGC CTGCGTTTTA GTCTCAAGCA GGGAGAGGTC GTTTTTGCGG TGAATTTCTT	9240
TAACCAGCCC TATCTGGCTG ATAAAATAGA GTTGGGAGCA ACCCTTGCTG TCTTTGGAAA	9300
ATGGGACCGC GCTAAGGCTA GTCTGACTGG GATGAAGGTT CTGGCTCAGG TAGAAGATGA	9360
CCTCCAGCCT GTCTATCGTC TGGCTCAGGG AATCAGTCAG GCCAGTCTGG TCAAGGTCAT	9420
CAAGACGGCT TTTGATCAGG GACTGGACCT CTTGATAGAA GAAAATCTGC CCCAGTCTTT	9480
ACTAGACAAA TACAAACTCA TGTCCCGTTG TCAGGCAGTC CGTGCTATGC ATTTTCCAAA	9540
GTATTTGGCA GAATACAAGC AGGCTCTTCG CCGTATAAAG TTTGAGGAAC TCTTTTATTT	9600
CCAAATGCAG CTGCAGATGC TCAAGTCTGA AAATAGAGTT CAGGGAAGTG GTCTGGTTCT	9660
GAATTGGTCT CAGGAAAAAG TGACAGCAGT TAAAGTAAGT CTTCCCTTTTG CCCTGACCCA	9720
AGCTCAGGAA AAGAGTTTGC AGGAAATTTT AACTGATATG AAGTCCGACC ACCACATGAA	9780



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TCGTCTCCTA	CAAGGGGATG	TGGGGAGTGG	AAAAACGGTA	GTCGCTGGCT	TGGCCATGTT	9840
TGCGGCAGTG	ACAGCAGGTT	ATCAGGCTGC	CCTAATGGTA	CCAACAGAAA	TCCTCGCAGA	9900
GCAACACTTT	GAGAGTTTAC	AGAACCTTTT	TCCCAATTG	AAACTGGCTC	TCTTGACAGG	9960
TTCTTGAAA	GCTGCAGAAA	AGAGAGAAGT	CTTGGAGACC	ATTGCCAAGG	GTGAGGCTGA	10020
TTTGATTATA	GGAATCACC	CTCTGATACA	AGATGGGGTG	GAGTATGCTC	GTCTTGTTT	10080
GATTATTATC	GATGAGCAGC	ACCGTTTTGG	TGTAGGGCAA	AGGCGTATTT	TACGGGAAAA	10140
AGGTGACAAT	CCAGATGTCC	TCATGATGAC	GGCGACTCCC	ATTCCACGGA	CGCTTGCCAT	10200
CACAGCCTTT	GGAGATATGG	ATGTTTCCAT	TATCGACCAG	ATGCCAGCAG	GTCGGAAGCC	10260
TATTGTGACG	CGCTGGATCA	AACATGAGCA	ACTACCTCAG	GTCTTGACTT	GGTTAGAGGG	10320
GGAAATTCAA	AAAGGTTCCC	AAGTCTATGT	CATCTCTCCT	TTGATTGAAG	AATCAGAAGC	10380
TCTAGATTTG	AAAAATGCCA	TTGCCTTATC	AGAGGAGTTG	ACGACTCATT	TTGCAGGCAA	10440
GGCAGAGGTG	GCTCTTCTAC	ATGGTAGGAT	GAAGAGTGAC	GAAAAAGACC	AGATCATGCA	10500
GGATTTCAAG	GAGAGAAAGA	CGGATATTCT	GGTTTCGACG	ACGGTTATTG	AGGTTGGGGT	10560
CAACGTTCCC	AATGCGACTG	TCATGATTAT	CATGGATGCC	GATCGCTTCG	GTCTCAGTCA	10620
ACTTCACCAG	CTTAGAGGTC	GTGTCGGTCG	GGGGGACAAG	CAGTCCTACG	CTGTTCTCGT	10680
TGCTAATCCC	AAGACGGATT	CTGGGAAAGA	CCGCATGCGT	ATCATGACAG	AAACGACCAA	10740
TGGATTTGTC	CTTGCGGAGG	AAGATTTGAA	AATGCGTGGT	TCTGGTGAGA	TTTTTTGGAAC	10800
CAGACAGTCA	GGACTTCCAG	AGTTCCAAGT	GGCTGATATT	ATCGAAGATT	TTCCGATTTT	10860
AGAAGAAGCA	AGAAAGGTTG	CTAGCTACAT	TAGTTCTATA	GAAGCTTGGC	AAGAAGATCC	10920
AGAGTGGCGC	ATGATTGCCC	TTCATCTGGA	AAAGAAAGAA	CATCTGGATT	AAGCTTTCTC	10980
TAAGGAAAAC	TTATACTCAA	TGAAAATCAA	AGAGCAAAC	AGGAAGCTAA	CCGCAGGTTG	11040
CTCAAAACAC	TGTTTTGAGG	TTGTGGATGA	AACTGACGAA	GTCAGCTCAA	AACACCGTTT	11100
TGAGGTGGCA	GATAGAACTG	ACGAAGTCAG	TAACATATAT	ATACGGTAAG	GCGACGCTGA	11160
CGTGGTTTGA	AGAGATTTTC	GAAGAGTATT	AAGCTAGTTT	TTAGGTTTGG	CTCTTATACT	11220
AGAGTCATCA	AAAAGAAACG	AGGACTCTCA	TATGACAGTA	ACGATTAAAG	TAAATTACCA	11280
AACCACTTTC	CAAAAGAAGG	AAGCAAAAAA	CTAGTATAAA	CAGAAGAGAG	AGCGAAATGC	11340
TCTTTTTTCG	TTTCTAAAAC	TACTTTCAGC	CCATCATCCT	AAAAGTAAAG	AATCTAAATT	11400
CACTTTCTAT	TTACCCTTCT	TTCTTGCAAT	GATTACATAG	ATATGCTACA	GTTGTGGTAA	11460
CGATTACAAA	ATAAAAGGAG	CATGCTATGA	AAAATCCAGC	TTTGCTAGAA	GAAATTAAGA	11520
CCTATAGAGG	AAGGGATGAG	GTTCCGGAAG	ACTTTGATGA	TTTCTGGGAT	GGGGAAGTGA	11580

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AAAATGTTTC CACGCTTCCA TCCTACCACT TGGAGGAAAG AGATTTCCAC ATTCCTCAAG	11640
TCAAGTGCTA TGAGTTAACA TTTGAAGGAA GCAAGGAAGG AAAGGTCTAT GCACGCATTG	11700
TTCTTCCAAA GAGTGAGGAG AAGGTCCCAT TAATCTTCCA TTTTCATGGT TATATGGGAC	11760
GTGGCTGGGA CTGGGCCGAC ATGCTGGGCT TCACCGTAGC TGGTTACGGT GTTGTTTCCA	11820
TGGATGTGCG GGGCCAGTCA GGTACTCAC AAGACGGCTT GCGTTCTCCT TTAGGAAATA	11880
CCGTGAAGGG GCATATTATC CGTGGTGCTG TGGAAAGGTCG GGACCACCTC TTTTATAAGG	11940
ATGTTTATCT GGATATTTAC CAGTTGGTCG AAATTGTTGC TAGTCTGTCT CAGGTTGATG	12000
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CGCTCAATCC TCGAATTCAG AAAACAGTTG CCATTTATCC CTTCTTGTC AACTTCAGAC	12120
GGGTGATTGA GATTGGTAAT ACTAGCGAGG CTTACGACGA ACTTTTCCGT TATTTCAAGT	12180
TTCACGACCC CTTCCATGAA ACAGAGGAGG AAATCATGGC GACCCTTGCC TATATCGATG	12240
TCAAAAATCT TGCCCATCGT ATCCAAGGTG AGGTAAAGAT GATTACGGGC TTGGACGACG	12300
ATGTTTGCTA TCCCATTACC CAGTTTGCGA TTTATAATCG TCTGACCTGC GATAAAACCT	12360
ATCGCATCAT GCCTGAGTAT GCTCACGAAG CCATGAATGT ATTTGTCAAT GACCAAGTCT	12420
ACAACTGGCT CTGTGGAAGT GAGATTCCTT TTAAATATCT AAAATAAGGA GTCGACTCTA	12480
AGCACAAAAT CTTAAAAATT ACAAACACGC ATAGTATCAG GGGATTAAGA AAACTTTATA	12540
CTATGCGTTT TATCATGGAA ATATAGTAAA ATGAAATAAG AACAGGACAA ATCGATCAGG	12600
ACAGTCAAAT CGATTTCTAA CAATGTTTTA GAAACAAATG TGTACTATTC TAGTGTCAAT	12660
CTATTATATT TATAGAATTT TTTGTTGCTA GATTTGTCAA ATTGCTTAAA ATAATTTTTT	12720
TCAGAAAGCA AAAGCCGATA CCTATCGAGT AGGGTAGTTC TTGCTATCGT CAGGCTTGTC	12780
TGTAGGTGTT AATACTTTTC AAAAATCTCT TCAAACCACG TCAGCTTCGC CTTGC	12835

(2) INFORMATION FOR SEQ ID NO: 142:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5020 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 142:

GGGGATATGA AGAACAAAAG AATATTTAAA GACTTCCAAG CTTCAAAAAT GAGTTTAAAC	60
ATTTACACAA GCCCCTTGTT AGCCTTTGTT TTTGTCTTCA TAGGAGAGTT TGTGGCTTTT	120

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ACTTTGTATG GTATTGGCTT GTTAGCTCTC ATCGGACTTG CTAGAAATTT TGGAGAGGCT	180
GGTCAAAATC TTGCAAGCTA CTTGCAGACC TTGCATCAGA GCTTGACGGA TAAAACAAGT	240
GACTTTCGTT TAATTTTAGG ATTACTGGCC TTTGGTTATT CTTAAACTG TGTTCAGATG	300
GACAAGAAAA GTTGAGAAAA GACCTATTCG AACCTTGGGA TTTTATAGAG AGAATTCCT	360
CAGCAATCTT CTGAAAGGAT TTAGTCTAGG CCTGGCACTT TTTCTTCTGA CCTTGTTAGG	420
TTTAGTGGTC TTAGGTCAAT ATCGTTTGGG ATCCATTCAC TTGAATCCTT ATTCTCTTGC	480
CTTTGTGCTC TTTACTATCC CATTTTGGAT TTTACAGGGG ACAGCAGAAG AAGTGGTGGC	540
CCGTGCTTGG CTACTTCCTC AATTGGCCTC AAGAACCAAT CTAAACTAG CTATTCTTAT	600
ATCTAGCCTG TTCTTTACCC TGCTTCATAT GGGCAATTCT GGTCTCACCC CTCTATCTCT	660
AGTAAATCTC TTTTATTTCG GAGTTGCCAT GGCTCTTTAC CTTCTCAAAA CTGATACAGT	720
TTGGGGTGTT GCAGGTATTC ATGGTGCTTG GAATTTTGCT CAGGGTAATC TCTTTGGGAT	780
TTTAGTTAGT GGTCAACCGT CAGaACGTCT CTGATGACCT TTTTACCACA AGGCAATCAA	840
GATTGGCTAT CAGGTGGTTC TTTTGGCATA GAAGGTTCCA TTATGACAAG TCTGGTATTA	900
CTACTGCTGA TTGTCTATCT TGCTAATAAA TTAAAGAAAG AAAATGAAAG GATGTGACTT	960
CGGTCCGTCC TTTTCTTCGT GAAAATACTA TAAGTATGCT AAAATAGGAA TAGCACATGG	1020
AGAGAGGATT CTTATGATCA ATCACATTAC AGATAATCAA TTTAAACTAG TATCAAAATA	1080
TCAACCATCA GGAGATCAAC CCAAGCTAT CGAGCAGTTG GTGGATAACA TTGAGGGGGG	1140
AGAAAAAGCT CAGATTCTGA TGGGGGCGAC TGGAACAGGG AAGACCTATA CTATGAGTCA	1200
GGTCATTTCT AAAGTCAATA AACCAACTCT GGTTATTGCC CACAATAAAA CTCTGGCTGG	1260
TCAGCTCTAT GGGGAGTTTA AGGAATTTTT CCCTGAAAAT GCAGTTGAGT ATTTTCGTATC	1320
CTACTATGAT TATTACCAGC CAGAGGCCTA TGTCCCTTCT AGCGATACCT ATATTGAGAA	1380
GGATAGTTCT GTCAATGACG AGATTGACAA GCTTCGCCAC TCAGCTACCT CAGCCCTTTT	1440
GGAGCGTAAT GATGTTATTG TCGTGGCCTC AGTCTCTTGT ATCTATGGTT TGGGTTGCC	1500
CAAGGAATAC GCTGATAGTG TCGTTAGTCT CCGTCCTGGT CTAGAGATTT CTCGTGATAA	1560
ACTCTTGAAT GACTTGGTCG ATATTGAGT TGAACGTAAT GATATTGATT TCCAACGCGG	1620
AAGATTTTCG GTTCGTGGGG ATGTGGTAGA GATTTTCCCA GCTTCCCGAG ATGAACATGC	1680
CTTTCGAGTA GAATTTTTTG GAGACGAAAT TGACCGTATT CGTGAAGTTG AGGCTCTGAC	1740
AGGTCAGGTG TTGGGAGAAG TGGATCATTT AGCGATTTTC CCAGCGACAC ACTTTGTGAC	1800
CAATGACGAC CACATGGAAG TTGCCATTGC AAAGATTCAG GCCGAGTTGG AAGAACAATT	1860
AGCTGTCTTT GAAAAGGAAG GTAAACTGCT TGAAGCCCAG CGTTTGAAAC AGCGGACAGA	1920

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GTATGATATC	GAAATGTTGC	GTGAGATGGG	CTATACCAAT	GGGGTTGAAA	ATTATTCTCG	1980
CCACATGGAT	GGACGGAGCG	AAGGAGAGCC	TCCTTATACG	CTTCTCGACT	TCTTCCCAGA	2040
TGATTTCTTG	ATTATGATTG	ACGAGAGTCA	TATGACCATA	GGGCAAATCA	AGGGCATGTA	2100
CAATGGAGAC	CGTTCGCGTA	AAGAAATGCT	GGTTAATTAT	GGTTTCCGTT	TGCCGTCTGC	2160
TTTGGACAAT	CGTCCTCTCC	GTCGGGAGGA	GTTTGAGAGT	CACGTTTCATC	AGATTGTTTA	2220
CGTTTCAGCG	ACACCTGGTG	ACTATGAAAA	TGAACAGACC	GAGACAGTGA	TTGAGCAAAT	2280
CATTCGTCCA	ACGGGACTCT	TGGATCCAGA	GGTGGAAGTC	CGTCCGACTA	TGGGACAGAT	2340
TGATGACCTC	TTGGGTGAAA	TCAATGCCCC	CGTTGAAAAA	AATGAGCGTA	CCTTTATCAC	2400
AACTTTGACC	AAGAAAATGG	CAGAGGATTT	GACCGACTAC	TTCAAGGAAA	TGGGTATCAA	2460
GGTCAAGTAC	ATGCACTCGG	ATATCAAGAC	CTTGGAACGG	ACGGAGATTA	TCCGTGACCT	2520
GCGCTTGGGT	GTCCTTGATG	TCTTGGTCGG	AATTAACCTG	CTCCGTGAAG	GAATTGACGT	2580
TCCTGAAGTG	AGCCTCGTAG	CTATTCTCGA	TGCTGACAAG	GAAGGTTTCC	TTCGCAACGA	2640
ACGTGGACTC	ATCCAGACCA	TTGGACGTGC	TGCACGTAAT	AGCGAAGGTC	ATGTTATCAT	2700
GTATGCGGAC	ACGGTTACCC	AGTCTATGCA	ACGTGCTATC	GATGAAACTG	CCCGCCGTCG	2760
CAAAATCCAG	ATGGCCTATA	ATGAAGAACA	TGGTATCGTT	CCACAAACCA	TCAAGAAAGA	2820
AATCCGTGAC	TTGATTGCTG	TGACCAAGGC	AGTTGCTAAG	GAAGAAGACA	AGGAAGTCGA	2880
TATCAATAGC	CTCAACAAAC	AAGAGCGCAA	AGAACTAGTC	AAAAAGCTTG	AGAAACAAAT	2940
GCAAGAAGCA	GTTGAAGTGC	TTGACTTTGA	ACTAGCAGCT	CAGATTTCGTG	ATATGATGCT	3000
GGAAGTCAAG	GCCTTGGATT	AGGGGAATAG	TATGATTTAT	TTAAGAAAGT	TAAAGAAAGA	3060
AGATTTGATG	TCTTTATGGG	AAATGGCTTA	TTCACAGCTT	AATCCAGTTT	GGAAACAGTA	3120
TGATGCTCCC	TATTATGATG	ATTATCAGTA	TTTTTCAAAT	TTTAAAGAAT	TCGAACTACA	3180
AAAATCAGAA	TCCATTTTAA	GCAACTCAAA	TCGCCTTGGT	ATTTTTGTTG	ATGATAAACT	3240
AGTTGGGACT	GTTTCGCGTT	ATTGGGTATG	TAAAGAAACA	AGATGGATGG	AATTGGGAAT	3300
TGGTATTTAT	GATAAAAAAT	TCTGGAACAC	TGGTATTGGG	AAAGTTGCTA	TGTTGCAGTG	3360
GATAGATAGG	ACGTTTCAGG	ATTACTTGGA	GTTGGAGCAT	CTGGGTTTGA	CAACTTGGTC	3420
AGGAAATATT	GGTATGATGA	AACTTGCTGA	AAAATTAAGA	ATGAAAAAAG	AAGCTCATAT	3480
TCCAAAAGTT	CGTTATTATC	AAGGTAAATA	TTTTGACAGT	ATTAAATATG	GTATTTTGAG	3540
AGAAGACTGG	GAGAAAATAA	ATGACGGTTA	TTATCAAATC	AATGGAAACT	CCTGAAGAGA	3600
TAGAAGGTAA	ATCCTTCGTT	CACTGGCAAA	CGTGGAGAGA	GGCTTATGAT	GACCTTTTGC	3660



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CTGCGGAATT TCAGGAGACA ATGACATTAG AAAGATGTCG ACTCTTTAGT CAAAAGTATC	3720
CAGAAAATAC ATTGATTGCG ATGGATGGTG TGAAGATAGT TGGTTTTATA AGTTATGGCA	3780
ACTGTCGTGA TGAGACTATT CAAGCTGGTG AAATTATTGC TTTATATGTT TTAAAAGACT	3840
ATTATGGAAG AGGAATCGCA CAAAAGTTAG TGAAAGCAGC TTTGACTGAT CTTAATCATT	3900
TTTCTGAAAT TTTCTTATGG GTATTGAAAG ATAACAAGCG CGCCATTGCT TTCTATCAAA	3960
AAATGGGTTT TACTTTTGAT GGACAAGAAA AAATACTTGA ACTTGGAAG CCTATAAAGG	4020
AAAAACGGAT GGTATTCTAT TCTAAATAAT TCTCAAAAGT AAAAGCTAAT ATGGTACCAA	4080
GTCTGAAAAT TTAATAAATT AGAAAGCGAG TAAATTTATG TCCCGTTCCC AATTAACAAT	4140
TTTAACAAAT ATCTGTCTGA TTGAAGACCT CGAAACTCAG CGCGTGGTGA TGCAGTATCG	4200
CGCCCCTGAA AACAATCGCT GGTCTGGTTA TGCCTTTCCT GGAGGTCATG TAGAAAATGA	4260
TGAGGCTTTT GCGGAGTCTG TCATTCGTGA AATCTACGAA GAAACAGGGT TGAATATCCA	4320
AAATCCTCAA CTTGTCGGCA TTAAAAATTG GCCACTAGAT ACAGGTGGGC GCTATATTGT	4380
CATTTGTTAT AAGGCGACTG AGTTCTCTGG TACCCTTCAA TCTTCAGAAG AGGGAGAAGT	4440
TTCTTGGGTG CAAAAGACC AGATTCCAAA CTAAATCTG GCCTATGATA TGCTACCATT	4500
GATGGAAATG ATGGAAGCTC CCGACAAGTC AGAGTTTTTC TACCCTCGCC GTACAGAAGA	4560
CGATTGGGAA AAGAAAATCT TCTAGTCTTT TACTAAATAA CCTAGCTGAT CCAAGGCCTC	4620
CTCGATATAG TGGAGGTCTT GTTGTGTCTC GGCTTCAACT AGGTGATAAT GAATACCATC	4680
TGTTAACTCA GAAATTGGCT TAAAGTCAGA ACGTTCAACT TGTTCTAGAA AATGTTGCAC	4740
GTCGCGGCGA CAGGTCAGTT TTAGTAAGGT TTCAATCTCT CCATAAACAG GATGATCAAT	4800
CAAGATATTT TGAACGCGAC CACCATTATC TACGATAGCA AGTAATTCTC GTCCAATTTT	4860
TTCAACTTCA TGCTTGACCT TAAATAATTT GTGATGATAA GTATTTGCAT TAGCATCTTT	4920
ATAGATATAA CCACGATTGG TAGATAGAAT TGGAGATCCA TCAGCTCTTA AAATTGCAAT	4980
ATCTTGAACA ATAACCTGTC GAGTGACATG AAAGTGCTCA	5020

(2) INFORMATION FOR SEQ ID NO: 143:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 4965 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 143:

AAAAAGTGGC AATCCATTGA TTGGCCACTT CATTTAGAGA ATTATCGTCT CGCCCTTGAA	60
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GAAGAAGGTC	GTGTAGTACT	TGAGTTACTG	CTATCGCTAG	AACTACTACT	TGAACTGCTG	120
GAGCTGGATG	GAGTTGGTAG	ACTCCCCACA	ATACTAGACC	AAGCATTCTG	ATAATCCGCA	180
TCACTTCCGC	CAATAGCAAA	GCGATAACTT	GTCGCTGGCG	CTCCTGACTT	ATTAGCCCAA	240
TAGCTGGTAA	CAGTCGAACC	TGTGACCTCT	ACTTCTTTTC	CTTCAACAGA	AACCTTCTCT	300
GGTTTTTGAC	CTGTTGATTT	CAAGACTTCC	GATTTCACTA	CACTAGGATC	TAAAGCAAAG	360
CGCTCGTTCC	CCCAAATGCT	TGGGGAAGCT	TGCTGAATCG	CATTTACCAG	ATGAGCCATG	420
TAATTAGAGT	TATTAGAATA	ACCTGCTCTA	CGTGACAATG	AATGATTATC	ATCATGCCCA	480
ATCCAGCCAC	CTAGGGTTAA	TCTAGGTGTC	GAAAGCATGA	GCCACATATT	TTCGTCTTGG	540
TTGGTTGTAC	CAGTCTTCCC	AATCCAATCT	GCATTAGCCA	GAGTAGGATT	TAAAGAAGTC	600
AGGTTAGACT	TGAAGGTTGT	TGTCACACGA	GAGGATAGAA	CTTCTCGTAG	CAATCCCTGC	660
ATAATCGTCG	CAGTAGCTTT	TGAATAGACT	TGAACCGGTT	TATCCTGATA	CTCATAACCC	720
ACTCTACCAT	CTGCTGCTTC	AATCTTTGAA	ATCACATGCT	TCTGATGATA	AACTCCATTA	780
TTAGCTAAGG	TCTGATAGCC	ATTGGTATGC	TGGGCAACTG	TGACTTCAAT	ACCACCACCC	840
ATTGGCAAGC	TCTCAATACC	GTACTCAGGA	ATCTCGTAAC	CCATCTTTTC	CATATAACCC	900
TTGACATCAA	CACCCTTTTC	ACGGAGCATA	CGATAGGTCC	AGTAAGCAGG	GATATTCCAT	960
GAATAGTTCA	GAGCTTCTCC	CAAGGTCATC	ATTCTGTGTC	CCTTGCTATT	AGCATACATA	1020
ATCGGATTGC	CATTAGCAAA	GTTTGTGGA	TAGTTAGATA	GAATCGTTTC	ACTTCCCATC	1080
AAGCCCTGGT	CAATAGCAAT	ACCGTAGGCC	AGCAAGGGCT	TGGTAGTAGA	AGCTGGCGAA	1140
CGTTTGGTAT	CAAAGGCATG	ATTATTTTGA	TTTTCTTGAT	AATTACGACC	ACCTACAAAG	1200
CCTAGAATAG	CACCTGTTTG	GTTATCCATC	AAGACATTCC	CTACTTCTAC	ACGACCTGTT	1260
CCATCGTCTA	AAAGATAGCC	ATAATCAGCA	ACCGCACTTT	GCATGGCAGA	ATGAATTTTC	1320
TGATCTATGG	TAGTAGTAAT	CTTATAACCA	CCATTTTCAA	TTTCCTTGGC	TGCCAAATCT	1380
CGATAAAACT	TCTGAGTTGC	CTCATTTTTTC	AACTCCTTAG	CGGAGACATT	GTCTCTCTGA	1440
GCTAGATAGT	CATACATACG	TTCTTGAGCT	TCTGCCAAAG	TTGTAAAGTA	TAAATAGTCT	1500
CGTGAAATTC	CTGTAACCGT	GCCCGATGGT	AAAAAGTCCT	GTTTAAGGTC	ATAATCCTTG	1560
TACTGAGAAT	ACTCGTCTTT	GCTTAATGCA	CCTGTACGAT	ACATACTGTA	AAGAACTGCC	1620
TTAGCCCGTC	TTAAGCCAAT	TTCTAGGTCT	TCATCACTCT	TCAACTCCCC	AGTATTTTCA	1680
TAAGGAGAGT	AAGTAATGGG	ACTCTGTGGA	AGTCCTGCTA	AAAATGCTGC	TTGAGGAACA	1740
GTCAACTGAC	TGGCATCTAC	ACCGAAAATT	CCCTCAGCTG	CTTGCCGAGC	CCCTGCAATA	1800

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TTCTGTCCCT	TATTATTTTCG	GCCAAAGGGA	GCCACATTGA	GATAGGTCGT	TAAAATCTCA	1860
TCTTTATTCA	TGGCGCGTTC	CAAGGCAAGA	GCATCCACAA	TCTCTGCCGC	CTTACGAGCC	1920
AAGGTCGGCG	CATCCCCAAC	CACCTGCTGT	TTAATTAGTT	GCTGGGTCAA	GGTTGAACCC	1980
CCACTAGAGG	AACCCAAACC	TACAAATTTT	CCCAAGGTCG	CACGAATCAC	CGCCTTGGGT	2040
ACTACACCCT	TATGTTCTTT	AAAGTGTTCA	TCTTCTGTCG	CAATGATAGC	CTTCTTCAGA	2100
TTTTCCGAAA	TTTGCTCAGA	TGAGATAGAA	GTGCGCAACA	AATCACTCTC	TATGGAAGCA	2160
ATCACCGTCC	CGTCCGAATA	GGTAATCTCT	GAAATAGAAG	AGATGTCCTT	GACCTGATTC	2220
ACCAATTCTT	CTGTCTGAGG	CACCCGAACC	TTGTCAAATA	AGGCCACTCC	GTATCCCAA	2280
GCAATCCCAG	CTCCCAACAT	TCCTCCTAGA	AAACCGAGTA	CAAAGAGTAA	GTAAATAAG	2340
GCTTTTATAC	TCAGTAAAAT	AGCTGGGAAA	ATGACTGACT	TATCTAAGGT	TTTAGATTTT	2400
TTGGTACTTG	AACCTTTCTT	GCCAGGTCTA	GCTGATTTTT	TATTTTTTTG	TTTTTGCTGG	2460
AAAAATTCCA	GCATTTTTCG	TTTTAATTCA	TTTAATTGAT	TTTGCATGGA	TTTCCTCACT	2520
TTATCTATTA	TACCACAAAA	GGGAAATTTT	CAATAAAATA	GCCACTTTCT	TCCCTATTCT	2580
GCTAGGCTAT	TGCCCAAGTT	TGTGATACAA	TAGGTAGAAA	CAATAATTTT	AAAAAGGAGA	2640
AAAAACACAT	GCACATTTT	GATGAGCTAA	AAGAGCGTGG	TTTGATATTT	CAAACGACTG	2700
ATGAAGAAGC	TTTGCGTAAA	GCCCTAGAAG	AAGGTCAAGT	TTCTTATTAT	ACTGGCTACG	2760
ATCCAACCTG	TGACAGCCTT	CACCTAGGCC	ACCTTGTCGC	AATCTTGACA	AGTCGTCGCT	2820
TGCAACTAGC	AGGTCACAAA	CCTTATGCGC	TCGTTGGCGG	TGCTACAGGT	CTCATCGGAG	2880
ATCCGTCCTT	CAAAGATGCT	GAACGTAGTC	TCCAAACAAA	AGACACAGTA	GATGGCTGGG	2940
TCAAGTCTAT	CCAAGGACAA	CTTTCTCGTT	TTCTTGACTT	TGAAAATGGC	GAAAACAAGG	3000
CTGTCATGGT	CAACAACTAC	GACTGGTTTG	GCAGCATCAG	CTTCATTGAC	TTCTCCGTG	3060
ATATTGGAAA	ATACTTCACG	GTCAACTACA	TGATGAGTAA	GGAATCTGTT	AAAAACGGA	3120
TCGAAACAGG	AATTTCTTAC	ACTGAGTTCG	CTTACCAAAT	CATGCAAGGG	TATGACTTCT	3180
TCGTCCCTAA	CCAAGACCAT	AATGTCACTC	TTCAAATCGG	TGGTTCTGAC	CAGTGGGGAA	3240
ATATGACAGC	TGGTACCGAA	TTGCTTCGTC	GTAAGGCGGA	CAAGACTGGT	CACGTTATCA	3300
CTGTTCCACT	AATCACAGAT	GCAACTGGTA	AGAAATTTGG	TAAATCAGAA	GGAAATGCCG	3360
TCTGGCTCAA	TCCCGAAAAG	ACTTCTCCAT	ACGAAATGTA	CCAATTCTGG	ATGAACGTGA	3420
TGGACGCTGA	CGCTGTTTCG	TTCTTGAAAA	TCTTTACTTT	CTTGTCACCT	GATGAGATTG	3480
AAGATATTCG	TAAACAATTT	GAAGCAGCGC	CACACGAACG	CTTGGCTCAA	AAAGTCTTGG	3540
CTCGTGAAGT	TGTTACACTT	GTTACGCGAG	AAGAAGCCTA	CAAAGAAGCA	CTTAACATCA	3600

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CTGAGCAACT CTTTGCAGGA AACATCAAAA ACCTTTCTGT CAAAGAGCTC AAACAAGGAC	3660
TTCGTGGTGT GCCCAACTAC CAAGTACAGG CAGACGAAAA CAACAATATC GTGGAAGTGC	3720
TCGTCTCATC TGGTATAGTT AACTCAAAAC GCCAAGCCCG TGAAGACGTC CAAAACGGAG	3780
CCATCTACGT AAACGGCGAC CGCATCCAAG AGCTTGACTA TGTCTTGAGT GACGCTGATA	3840
AGTTAGAGAA TGAAGTACT GTTATCCGTC GTGGGAAGAA AAAATACTTT GTATTGACTT	3900
ACTAAACTAT TCAACATTTA TCTATAAACA AAGGAGTTAA CCTCGAGAAA GGTAACCTCT	3960
TTTTGCTGTT AATAACTCTC ATCTATCTAT TTTTAATAGA CAGGCTACGC AGGACAATGC	4020
GCAAGGTTGT TAGATTATGT AAGATAGAGA GATTTGAAGG ACTGAACCAA TTAAATAAGC	4080
CAAAGCCAAT CAAACTACTA TTTACGACAA CGGTATCCTG AATATTTTTC TTGATGAGTG	4140
TTTGCAAAGA TGATGATAAC GAATCCAAC CTGGAAGAA ATCCAAACGA TTATCTAACA	4200
ATAAGATATC ACTCATCTGC TTAGAAATAT CTGCACTCTC ATTCATCACC ACACCGATAT	4260
CTGATAGAGT TAAAGCCGCT GAGTCATTCA ATCCATCTCC AACCATCAAA ATAGTGTGAC	4320
CTGCTTTCTG CAGTTTCTCT ACTAACTCAA ATTTCCCATC AGGTTTCAAG TCTGTATAGA	4380
CCTGATCAAA GGGCAAATCT TTGACTAATT CCTCTGTCCT AATCAAGGTG TCTCCTGTTG	4440
CCAGAATCAA TTTTTTCCCC TGTGCCTTAA GTTTATCCAA GGCTGTTTTT GCTTCTTTTC	4500
TCAAAGGAGT ATGAATGCAG AACATTCCAA TCAATTCATT TTGATAAGCC AAGAATAAGA	4560
GATTGTAGTG ACTCTTGAC TCTTCAATTA AAGCATTTTG TTCTGAACTG ATATGAATCT	4620
GCTCATCCTG CATCAAGACA TAATTCCCAA TAAGAACTGG TTGGCCATCT ATATGAGATT	4680
TGATCCCCTT GCTTGCGATA TATTGGAGTT TCCCATGCAT TTCCTCATGT TCAATTCCCT	4740
CTATCTCAGC TTGCTTGACG ATGGCATTAG CAATAGGATG ATAAATGTGT TCCTCAAGAC	4800
AGGCACTGAT TCTGAGAATA TCTTCCTCAC TATAGTCTCC AAAAGGTAAC ACCTTTTCAA	4860
CTATAGGATA ACTAGTTGTG ATTGTTCTG TCTTATCAAA CAAGAAAGTA TCAACTTCCA	4920
GATATTTCTC CCTGTTGTGG CCTCTGGCTG TCATCTCTGT GCTGG	4965

(2) INFORMATION FOR SEQ ID NO: 144:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3232 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 144:



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CAGGGGCGTA	TTACGTGACA	ATTCAATGTA	GGCTGTCGCT	ACTTGCGCCA	AAACAAGGAT	60
TCGATAATGT	CGGATGATAC	TAACGATTAA	ACCGAGCAGA	AAGGATCCCA	AAATTCCCCA	120
AACTGCAATA	TGCAAGGTCA	GAAAGAATGC	CTTTTGATAT	AGTGGTAGAT	ATTGTTCAAC	180
AATGGATCAA	TCCAAAAATA	GAACCTCCCA	TCTAGAAATA	ATACAGTTAT	TGTAGCACTT	240
AAAATCTTCT	TTGGATAATA	TCTATTTTTT	ATTGCCGTTA	TAAGGATTTT	TATCATAGAC	300
ATAAAATTTT	TGAAATTTCC	AAACAAAATA	TTTTAAAAGT	TTTGAAAAAG	AGTTAAGATA	360
TTTTTTGTAAT	ACACAAAGTA	AACGCTTACT	TATTAAGGAG	GACATTTTAT	GTCATACAAA	420
ACAAGCAATG	CAGAAGGTCA	TGTAGATTTT	ATCAATACCT	ATGATTTGGA	GCCAATGGCG	480
CAACAAGTTA	TTCTTAAAGC	AGCATTTGGC	TATATCGCTA	GTGGGGCGGG	AGATACTTTC	540
ACTTCTTTCC	AGTGATTTTA	GCGTCAGGTT	CTTTTTAGTT	TTTAAAGATT	ATCCGTGAAT	600
TTCTTGCTTA	TTTATGATAA	AATGGGAGTG	TCGCAAAAAA	TGACTCATCG	TATTCAATTT	660
TGAGTAAAC	TAGGAGGATC	CCATGTCTAC	AGAACATATG	GAAGAACTAA	ATGACCAGCA	720
GATCGTTCGC	CGTGAAAAAA	TGGCTGCGCT	CCGCGAACAA	GGAATCGATC	CTTTCGGAAA	780
ACGTTTTGAA	CGTACTGCAA	ATTCACAAGA	ATTAAAAGAT	AAATATGCCA	ACCTCGATAA	840
AGAACAATTA	CACGATAAAA	ACGAAACAGC	TACTATCGCA	GGACGCTTGA	TAACCAAACG	900
TGGTAAAGGA	AAAGTTGGTT	TTGCCCACCT	TCAAGACCGC	GAAGGCCAGA	TTCAGATCTA	960
CGTTCGTAAG	GATGCTGTCT	GTGAAGAAAA	CTACGAAATC	TTCAAAAAAG	CAGACCTTGG	1020
TGACTTCCTT	GGTGTGGAAG	GTGAAGTGAT	GCGTACGGAT	ATGGGAGAAC	TCTCTATCAA	1080
GGCAACCCAC	ATCACACACT	TGTCTAAGGC	TCTTCGTCCT	CTTCCTGAGA	AATTCCATGG	1140
TTTGACAGAC	GTTGAAACAA	TTTACCGTAA	ACGTTACCTT	GACTTGATTT	CTAATCGTGA	1200
AAGCTTTGAA	CGCTTTGTCA	CTCGTTCAAA	AATCATCTCT	GAAATCCGTC	GTTACCTTGA	1260
CCAAAAAGGA	TTCCTTGAAG	TGGAAACACC	TGTTCTTCAT	AATGAAGCCG	GTGGTGCTGC	1320
TGCCCCGTCCA	TTTATCACCC	ACCACAATGC	CCAAAACATT	GACATGGTGC	TTCGTATCGC	1380
GACTGAGCTT	CACTTAAAAAC	GCCTTATCGT	GGGTGGTATG	GAACGTGTCT	ATGAAATTGG	1440
CCGTATCTTC	CGTAACGAAG	GAATGGACGC	TACTCATAAC	CCTGAGTTCA	CTTCTATCGA	1500
AGTTTACCAA	GCTTATGCAG	ACTTCCAAGA	CATCATGGAC	TTGACTGAAG	GCATTATCCA	1560
ACACGCTGCT	AAATCAGTCA	AAGGTGATGG	CCCAGTCAAC	TACCAAGGTA	CTGAAATCAA	1620
GATTAACGAA	CCATTTAAGC	GTGTTTCATAT	GGTGGATGCT	ATCAGAGAAA	TTACTGGTGT	1680
CGATTTCTGG	CAAGACATGA	CTTTGGAAGA	AGCTAAAGCT	ATCGCTGCTG	AGAAGAAAGT	1740
TCCAGTTGAG	AAACACTACA	CTGAGGTTGG	TCACATCATC	AATGCCTTCT	TTGAAGAGTT	1800

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TGTTGAAGAA ACTTTAATCC AACCAACCTT TGTCTATGGA CATCCAGTAG CTGTATCTCC	1860
ACTCGCTAAG AAAAATCCTG AAGACCAACG CTTTACTGAC CGTTTCGAGC TCTTTATCAT	1920
GACTAAGGAG TACGGTAATG CCTTTACTGA GTTGAACGAC CCAATCGACC AACTTAGCCG	1980
TTTTGAAGCC CAAGCTAAAG CCAAAGAACT TGGTGATGAT GAAGCGACAG GAATCGACTA	2040
TGACTACATT GAAGCTCTTG AATACGGTAT GCCACCAACA GGTGGTTTGG GAATCGGTAT	2100
CGACCGTCTC TGCATGCTCC TCACTGATAC AACAACTATC CGTGATGTAT TGCTCTTCCC	2160
AACAATGAAA TAAATTCTTA TCCTCTGGGT CTTATCAGAG GATTTTTTGA TTCAAAAAGA	2220
GACTGAATTT AAGGAGAAAA TGAAGTGTAG TATATTGAAA TTGAAATAGT AACTTTGAT	2280
TTCTAAGACA TTGTTAGAAA TTGGTTTAAA TTCCCTAAGC AATTGTGCA TGTTTTATTT	2340
CATTTTACGA TAGTACGCTG AAACCTTTCA AAAAGTACTA GAAATTGACT TGGATTCCCC	2400
AATTGATTG TTCAGATTCA CTATAAATAA AAAATTAATA AGTGGGATAG GAAGTTAGCG	2460
TCAACTAGGA TAGTATCTTG CTTAAACAGT ATATATGGGA TTGATATAAG TCCATAGGTC	2520
CTATTAGAGG ATGTTCTGGT GTCTTATTCA CTTGTTTTTT ATAGTATTAG TAGATAGAAT	2580
CAGCAAATAA AAACCCAAAT CATTCATACC TCTCTCAACT AGATGTA ACT TACAAAACCC	2640
CTGACCTCAT GAGCCACTTT CTTCCTCCTC ATGAGGTCAG TTTTACTTTC TGCTGTTCCA	2700
GTATCGTTTT TCCTCGCTAG ATTTCCCTCAA AAGGGCAGAC TCCTCCCTTG GTGCGTCACA	2760
CGATTTTTTC ATCTCGACTG TTCTTTAATG CATCATTAAC GACGCTTTTC TTCTAGGTGG	2820
TTCATAAGGA ACAGGAAGAT TCAGGTTGAC TTTTCTAATC CTAGAATAAA GTGCTGAAAA	2880
CAATTCGGAA TAGGCATAGA GACTAGACAA TTTGAGGAGC TGCTTGCGTC CTGTTCGAAC	2940
ACATTTTCCC ACCACGTGAA GAAAAAGATG GCGGAAGCGT TTGATTGTGA AAGTTTGGAA	3000
GTCACCTCCA GCTAGATGTT TGAGAAAAAG ATAGAGATTG TAGGCGATAC AGCTCATCAT	3060
CATACGAACT TCGTTTTTGA TTAAGGTGA ACTATCCGTT TTATCGCCAA AAAATCCCTC	3120
CTTCATCTCC TTGATGAAAT TCTCGGCTTG ACCACGTCCA CGATAAAGCT GAAACTGGTC	3180
TTGGCTTGTT CCACTCGTCA TATTTGTAAC GAGAGAAATA ACATCGTAGA AC	3232

(2) INFORMATION FOR SEQ ID NO: 145:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10711 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 145:

CCGGAGAAAA TGATGAAAAG TTCAAAACTA TTTGCCCTTG CGGGCGTGAC ATTATTGGCG	60
GCGACTACTT TAGCTGCATG CTCTGGATCA GGTTCAGCA CTAAAGGTGA GAAGACATTC	120
TCATACATTT ATGAGACAGA CCCTGATAAC CTCAACTATT TGACAACTGC TAAGGCTGCG	180
ACACAAATAT TACCAGTAAC GTGGTTGATG GTTTGCTAGA AAATGATCGC TACGGGAACT	240
TTGTGCCGTC TATGGCTGAG GATTGGTCTG TATCCAAGGA TGGATTGACT TACACTTATA	300
CTATCCGTAA GGATGCAAAA TGGTATACTT CTGAAGGTGA AGAATACGCG GCAGTCAAAG	360
CTCAAGACTT TGTAACAGGA TTAAAATATG CTGCTGATAA AAAATCAGAT GCTCTTTACC	420
TTGTTCAAGA ATCAATCAAA GGGTTGGATG CCTATGTAAA AGGGGAAATC AAAGATTTCT	480
CACAAGTAGG AATTAAGGCT CTGGATGAAC AGACAGTTCA GTACACTTTG AACAAACCAG	540
AAAGCTTCTG GAATTCTAAG ACAACCATGG GTGTGCTTGC GCCAGTTAAT GAAGAGTTTT	600
TGAATTCAAA AGGAGATGAT TTTGCCAAAG CTACGGATCC AAGTAGTCTC TTGTATAACG	660
GTCCTTATTT GTTGAAATCC ATTGTGACCA AATCCTCTGT TGAATTTGCG AAAAATCCGA	720
ACTACTGGGA TAAGGACAAT GTGCATGTTG ACAAAGTTAA ATTGTCATTC TGGGATGGTC	780
AAGATACCAG CAAACCTGCA GAAAACTTTA AAGATGGTAG CCTTACAGCA GCTCGTCTCT	840
ATCCAACAAG TGCAAGTTTC GCAGAACTTG AGAAGAGTAT GAAGGACAAT ATTGTCTATA	900
CTCAACAAGA CTCTATTACG TATCTAGTTG GTACAAATAT TGACCGTCAG TCCTATAAAT	960
ACACATCTAA GACCAGCGAC GAACAAAAGG CATCGACTAA AAAGGCTCTC TTAAACAAGG	1020
ATTTCCGTCA GGCTATTGCC TTTGGATTG ACCGTACAGC CTATGCCTCT CAGTTGAATG	1080
GACAACTGG AGCAAGTAAA ATCTTGCGTA ATCTCTTTGT GCCACCAACA TTTGTTCAAG	1140
CAGATGGTAA AAACCTTGGC GATATGGTCA AAGAGAAATT GGTCACCTAT GGGGATGAAT	1200
GGAAGGATGT TAATCTTGCA GATTCTCAGG ATGGTCTTTA CAATCCAGAA AAAGCCAAGG	1260
CTGAATTTGC TAAAGCTAAA TCAGCCTTAC AAGCAGAAGG AGTCCAATTC CCAATTCATT	1320
TGGATATGCC AGTTGACCAA ACAGCAACTA CAAAAGTTCA GCGCGTCCAA TCTATGAAAC	1380
AATCCTTGGA AGCAACTTTA GGAGCTGATA ATGTCATTAT TGATATTCAA CAACTACAAA	1440
AAGACGAAGT AAACAATATT ACATATTTTG CTGAAAATGC TGCTGGCGAA GACTGGGATT	1500
TATCAGATAA TGTCGGTTGG GGTCCAGACT TTGCCGATCC ATCAACCTAC CTTGATATTA	1560
TCAAACCTTC TGTAGGAGAA AGTACTAAAA CATATTTAGG GTTTGACTCA GGGGAAGATA	1620
ATGTAGCTGC TAAAAAAGTA GGTCTATATG ACTACGAAAA ATTGGTTACT GAGGCTGGTG	1680
ATGAGACTAC AGATGTTGCT AAACGCTATG ATAAATACGC TGCAGCCCAA GCTTGGTTGA	1740

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CAGATAGTGC	TTTGATTATT	CCAAC TACAT	CTCGTACAGG	GCGTCCAATC	TTGTCTAAGA	1800
TGGTACCATT	TACAATACCA	TTTGCATTGT	CAGGAAATAA	AGGTACAAGT	GAACCAGTCT	1860
TGTATAAATA	CTTGGAACCT	CAAGACAAGG	CAGTCACTGT	AGATGAATAC	CAAAAAGCTC	1920
AGGAAAAATG	GATGAAAGAA	AAAGAAGAGT	CTAATAAAAA	GGCTCAAGAA	GATCTCGCAA	1980
AACATGTGAA	ATAACTGTTG	CAAAATATAA	GAAAGGATTT	AGTATTTCCC	TTGAATGCTG	2040
AATCCTTTTT	TACATTTGTA	AAGAAAGATT	CTAAAATGTA	CGGACCCCCA	AAAGTTGGAG	2100
CCTCTTTTTG	TCAGAATAGA	GAAAATTTTT	GTAAATTTTA	CTTGTTTCCT	ATTGCTTTCT	2160
CAGCTATTAT	TTGTTATATT	AAAAGTATAA	TTATTTTTTA	TTTATCAGAG	TTAAGCATTG	2220
CACTTTCAGA	GGAAGGAGTA	TTTTTTAAAA	AGAAAATGTA	AACGTTTGCT	CAAAAATGAA	2280
AGGATTTAGA	AGTTTATGAA	TAAAGGATTA	TTTGAAAAAC	GTTGTAAATA	TAGTATTCGG	2340
AAATTTTCAT	TAGGTGTTGC	TTCTGTTATG	ATTGGAGCTG	CATTCTTTGG	GACAAGTCCG	2400
GTTCTTGCA	ATAGCGTGCA	GTCTGGTTCC	ACGGCGAACT	TACCAGCTGA	TTTAGCTACT	2460
GCTCTTGCAA	CAGCAAAAGA	GAATGATGGG	CGTGATTTTG	AAGCGCCTAA	GGTGGGAGAA	2520
GACCAAGGTT	CTCCAGAAGT	TACAGATGGA	CCTAAGACAG	AAGAAGAACT	ATTAGCACTT	2580
GAAAAAGAAA	AACCGGCTGA	AGAAAAACCA	AAAGAGGATA	AACCTGCAGC	TGCTAAACCT	2640
GAAACACCTA	AGACGGTAAC	CCCTGAATGG	CAAACGGTAG	CGAATAAAGA	GCAACAGGGA	2700
ACAGTCACTA	TCCGAGAAGA	AAAAGGTGTC	CGCTACAACC	AACTATCCTC	AACTGCTCAA	2760
AATGATAACG	CAGGCAAACC	AGCCCTGTTT	GAAAAGAAGG	GCTTGACCGT	TGATGCCAAT	2820
GGAAATGCAA	CTGTTGATTT	AACCTTCAAA	GATGATTCTG	AAAAGGGCAA	ATCACGCTTT	2880
GGTGTCTTTT	TGAAATTTAA	AGATACCAAG	AATAATGTTT	TTGTCGGTTA	TGACAAGGAT	2940
GGCTGGTTCT	GGGAGTATAA	ATCTCCAACA	ACTAGCACTT	GGTATAGAGG	TAGTCGTGTT	3000
GCTGCTCCTG	AAACAGGATC	AACAAACCGT	CTCTCTATCA	CTCTCAAGTC	AGACGGTCAG	3060
CTAAATGCCA	GCAATAATGA	TGTCAATCTC	TTTGACACAG	TGACTCTACC	AGCTGCGGTC	3120
AATGACCATC	TTAAAAATGA	GAAGAAGATT	CTTCTCAAGG	CGGGCTCTTA	TGACGATGAG	3180
CGAACAGTTG	TTAGCGTTAA	AACGGATAAC	CAAGAGGGGG	TAAAAACAGA	GGATACCCCT	3240
GCTGAAAAAG	AAACAGGTCC	TGAAGTTGAT	GATAGCAAGG	TGACTTATGA	CACGATTCAG	3300
TCTAAGGTCC	TCAAAGCAGT	GATTGACCAA	GCCTTCCCTC	GTGTCAAGGA	ATACAGCTTG	3360
AACGGGCATA	CTTTGCCAGG	ACAGGTGCAA	CAGTTCAACC	AAGTCTTTAT	CAATAACCAC	3420
CGAATCACCC	CTGAAGTCAC	TTATAAGAAA	ATCAATGAGA	CAACAGCAGA	GTACTTGATG	3480



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AAGCTTCGCG	ATGATGCTCA	CTTAATCAAT	GCGGAAATGA	CAGTACGCTT	GCAAGTTGTA	3540
GACAATCAAT	TGCACTTTGA	TGTGACTAAG	ATTGTCAACC	ACAATCAAGT	CACTCCAGGT	3600
CAAAAGATTG	ATGACGAAAG	CAAACACTT	TCTTCTATTA	GTTTCCTCGG	CAATGCTTTA	3660
GTCTCTGTTT	CTAGTAATCA	AACTGGTGCT	AAGTTTGATG	GGGCAACCAT	GTCAAACAAT	3720
ACGCATGTCA	GCGGAGATGA	TCATATCGAT	GTAACCAATC	CAATGAAGGA	TTTGGCTAAG	3780
GGTTACATGT	ATGGATTTGT	TTCTACAGAT	AAGCTTGCTG	CTGGTGTTTG	GAGTAACTCT	3840
CAAAACAGCT	ATGGTGGTGG	TTCGAATGAC	TGGACTCGTT	TGACAGCTTA	TAAAGAAACA	3900
GTCGGAAATG	CCAACATATG	AGGAATCCAC	AGCTCTGAAT	GGCAATGGGA	AAAAGCTTAT	3960
AAGGGCATTG	TTTTCCCAGA	ATACACGAAG	GAACCTCCAA	GTGCTAAGGT	TGTTATCACT	4020
GAAGATGCCA	ATGCAGACAA	GAACGTTGAT	TGGCAAGATG	GTGCCATTGC	TTATCGTAGC	4080
ATTATGAACA	ATCCTCAAGG	TTGGGAAAAA	GTTAAGGATA	TCACAGCTTA	CCGTATCGCG	4140
ATGAACTTTG	GTTCTCAAGC	ACAAAACCCA	TTCCTTATGA	CCTTGATGG	TATCAAGAAA	4200
ATCAATCTCC	ATACAGATGG	TCTTGGGCAA	GGTGTCTCC	TTAAAGGATA	TGGTAGCGAA	4260
GGCCATGACT	CTGGTCACTT	GAACATGCT	GATATTGGTA	AGCGTATCGG	TGGTGTCGAA	4320
GACTTCAAGA	CCCTAATTGA	GAAGGCTAAG	AAATATGGAG	CTCATCTAGG	TATCCACGTT	4380
AACGCTTCAG	AAACTTATCC	TGAGTCTAAA	TACTTCAATG	AAAAAATTCT	CCGTAAGAAT	4440
CCAGATGGAA	GCTATAGCTA	TGGTTGGAAC	TGGCTAGATC	AAGGTATCAA	CATTGATGCT	4500
GCCTATGACC	TAGCTCATGG	TCGTTTGGCA	CGTTGGGAAG	ATTTGAAGAA	AAAACCTGGT	4560
GACGGTCTCG	ACTTTATCTA	TGTGGACGTT	TGGGGTAATG	GTCAATCAGG	TGATAACGGT	4620
GCCTGGGCTA	CCCACGTTCT	TGCTAAAGAA	ATTAACAAAC	AAGGCTGGCG	CTTTGCGATC	4680
GAGTGGGGCC	ATGGTGGTGA	GTACGACTCT	ACCTTCCATC	ACTGGGCAGC	TGACTTGACC	4740
TACGGTGGCT	ACACCAATAA	AGGTATCAAC	AGTGCCATCA	CCCGCTTTAT	CCGTAACCAC	4800
CAAAAAGATG	CTTGGGTAGG	GGACTACAGA	AGTTATGGTG	GTGCAGCCAA	CTATCCACTG	4860
CTAGGTGGCT	ACAGCATGAA	AGACTTTGAA	GGCTGGCAGG	GAAGAAGTGA	CTACAATGGC	4920
TATGTAACCA	ACTTATTTGC	CCATGACGTC	ATGACTAAGT	ACTTCCAACA	CTTCACTGTA	4980
AGTAAATGGG	AAAATGGTAC	ACCGGTGACT	ATGACCGATA	ACGGTAGCAC	CTATAAATGG	5040
ACTCCAGAAA	TGCGAGTGGA	ATTGGTAGAT	GCTGACAATA	ATAAAGTAGT	TGTAACCTCGT	5100
AAGTCAAATG	ATGTCAATAG	TCCACAATAT	CGCGAACGTA	CAGTAACGCT	CAACGGACGT	5160
GTCATCCAAG	ATGGTTCAGC	TTACTTGACT	CCTTGGAAC	GGGATGCAAA	TGGTAAGAAA	5220
CTTTCTACTG	ATAAGGAAAA	GATGTACTAC	TTCAATACGC	AGGCCGGTGC	AACAACCTGG	5280

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ACCCTTCCAA	GCGATTGGGC	AAAGAGCAAG	GTTTACCTTT	ACAAGCTAAC	TGACCAAGGT	5340
AAGACAGAAG	AGCAAGAACT	AAGTGTAAAA	GATGGTAAAA	TTACCCCTAGA	TCTTCTAGCA	5400
AATCAACCAT	ACGTTCTCTA	TCGTTTCGAAA	CAAACATAATC	CTGAAATGTC	ATGGAGTGAA	5460
GGCATGCACA	TCTATGACCA	AGGATTTAAT	AGCGGTACCT	TGAAACATTG	GACCATTTC	5520
GGCGATGCTT	CTAAGGCAGA	AATTGTCAAG	TCTCAAGGGG	CAAACGATAT	GCTTCGTATT	5580
CAAGGAAACA	AAGAAAAAGT	TAGTCTCACT	CAGAAATTAA	CTGGCTTGAA	ACCAAATACC	5640
AAGTATGCCG	TTTATGTTGG	TGTAGATAAC	CGTAGTAATG	CCAAGGCAAG	TATCACTGTG	5700
AATACTGGTG	AAAAAGAAGT	GACTACTTAT	ACCAATAAGT	CTCTCGCGCT	CAACTATGTT	5760
AAGGCCTACG	CCCACAATAC	ACGTCGTGAC	AATGCTACAG	TTGACGATAC	AAGTTACTTC	5820
CAAAACATGT	ACGCCTTCTT	TACAACTGGA	GCGGACGTCT	CAAATGTTAC	TCTGACATTG	5880
AGTCGTGAAG	CTGGTGATCA	AGCAACTTAC	TTTGATGAAA	TTCGTACCTT	TGAAAACAAT	5940
TCAAGCATGT	ACGGAGACAA	GCATGATACA	GGTAAAGGCA	CCTTCAAGCA	AGACTTTGAA	6000
AATGTTGCTC	AGGGTATCTT	CCCATTTGTA	GTGGGTGGTG	TCGAAGGTGT	TGAAGATAAC	6060
CGCACTCACT	TGTCTGAAAA	ACACAATCCA	TATACACAAC	GTGGTTGGAA	TGGTAAGAAA	6120
GTCGATGATG	TTATCGAAGG	AAATTGGTCA	CTCAAGACAA	ATGGACTAGT	GAGCCGTCGT	6180
AACCTGGTTT	ACCAAACCAT	CCCACAAAAC	TTCCGTTTTG	AAGCAGGTAA	GACCTACCGT	6240
GTAACCTTTG	AATACGAAGC	AGGATCAGAC	AATACCTATG	CTTTTGTAAGT	CGGTAAGGGA	6300
GAATTCAGT	CAGGTCGTCG	TGGTACTCAA	GCAAGCAACT	TGGAAATGCA	TGAATTGCCA	6360
AATACTTGGA	CAGATTCTAA	GAAAGCCAAG	AAGGCAACCT	TCCTTGAGAC	AGGTGCAGAA	6420
ACAGGCGATA	CTTGGGTAGG	TATCTACTCA	ACTGGAAATG	CAAGTAATAC	TCGTGGTGAT	6480
TCTGGTGGA	ATGCCAACTT	CCGTGGTTAT	AACGACTTCA	TGATGGATAA	TCTTCAAATC	6540
GAAGAAATTA	CCCTAACAGG	TAAGATGTTG	ACAGAAAATG	CTCTGAAGAA	CTACTTGCCA	6600
ACGGTTGCCA	TGACTAACTA	CACCAAAGAG	TCTATGGATG	CTTTGAAAGA	GGCGGTCTTT	6660
AACCTCAGTC	AGGCCGATGA	TGATATCAGT	GTGGAAGAAG	CGCGTGACAG	GATTGCCAAG	6720
ATTGAAGCTT	TGAAGAATGC	TTTGGTTCAG	AAGAAGACGG	CTTTGGTAGC	AGATGACTTT	6780
GCAAGTCTTA	CAGCTCCTGC	TCAGGCTCAA	GAAGGTCTTG	CAAATGCCTT	TGATGGCAAT	6840
GTGTCTAGTC	TATGGCATA	ATCTTGGAAT	GGTGGAGATG	TAGGCAAGCC	TGCAACTATG	6900
GTCTTGAAAG	AACCAACTGA	AATCACAGGA	CTTCGCTATG	TTCCGCGTGG	ATCAGGTTCA	6960
AATGGTAACT	TGCGAGATGT	GAAACTTGTT	GTGACAGATG	AGTCTGGCAA	GGAGCATACC	7020

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TTTACTGCAA	CTGATTGGCC	AAATAACAAC	AAACCAAAAG	ATATTGACTT	TGGTAAGACA	7080
ATCAAGGCTA	AGAAAATTGT	CCTTACTGGT	ACCAAGACAT	ACGGAGATGG	TGGAGATAAA	7140
TACCAATCTG	CAGCGGAAC	TATCTTTACT	CGTCCACAGG	TAGCAGAAAC	ACCTCTTGAC	7200
TTGTCAGGCT	ATGAAGCAGC	TTTGGTTAAG	GCTCAGAAAT	TAACAGACAA	AGACAATCAA	7260
GAGGAAGTAG	CTAGCGTTCA	GGCAAGCATG	AAATATGCGA	CGGATAACCA	TCTCTTGACG	7320
GAAAGAATGG	TGGAATACTT	TGCAGATTAT	CTCAACCAAT	TAAAAGATTC	TGCTACGAAA	7380
CCAGATGCTC	CAACTGTAGA	GAAACCTGAG	TTTAAACTTA	GATCTTTAGC	TTCCGAGCAA	7440
GGTAAGACGC	CAGATTATAA	GCAAGAAATA	GCTAGACCAG	AAACACCTGA	ACAAATCTTG	7500
CCAGCAACAG	GTGAGAGTCA	ATCTGACACA	GCCCTCATCC	TAGCAAGTGT	TAGTCTAGCC	7560
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AAGATTACGG	AAGCAGTCTC	TATCTTTTCC	AATGAGGTTT	ATAGTACAGA	AAAAGCCTGA	7680
GAAGATGTCT	TCTCAGGCTT	TTGTTAAGCA	CATAAATACA	ATAGTGCTAT	GACAAAATCA	7740
CCCAGAAAAA	TCTGGGTGAT	AAATGTTATG	GTTGTGCTGG	TTGAGGATTC	TGATTTTGTT	7800
GATCAGGGGT	TGTATTTGAT	TGTTGCGTAT	TATTGTTAGG	ATTGGTAGTC	GTACTATTAT	7860
TTGTGCTTGG	AGTGGTTGAG	CTAGACTGTG	AAGTTGAACT	ATCTGATGAT	GAGCTTGAAC	7920
TTTCAGTTGA	TGGGGGTGT	TGTGGAGCAG	GTGAGTTCCA	CGTAGAACGA	GCACCATTTT	7980
TAAATACGAA	TTCTCCATTT	CTGTAGAGCC	CCTCTGGTAT	ATTCCAATCT	TCTGGATTGC	8040
TTCTTTCAGA	CAGGTAGGTC	ATCATAGAGC	GGTAACTTT	GGCAGCGACC	GTAAGGCCAT	8100
TGCCTACAAG	TGGTGTGAGA	CGGTTAGAAT	AGCCTGTCCA	TACAGCCATT	GAATATTTAC	8160
GCGTATAGCC	AGCAAATAGT	TCATCAGGTG	CTACAAATTG	AGAGGTCTTG	ATGTGGTTTT	8220
CAATTTCCCTC	GTCTGTATAG	TTAGAGGTTT	CTGTTTTACC	AGCCTGAGGG	AGCCAAGCAA	8280
GATAGGCATT	TCGTCCAGTT	CCATAAGTCA	AGACTGTTTT	CATCATGTCTG	GTCATCATAT	8340
AGGCTGTCTG	TTCTTTCATG	GCACGAGTTC	CGACATTAGA	GAACCTTTTT	TCACTCCCAT	8400
CACTAAAGAC	GACTTTATGG	ATATACATTG	GTTTATAGTA	AGTTCCACCA	TTTGCAAAGG	8460
CAGCGTAAGC	AGCAGCCATC	TTTTCACTAC	TTGCTCCATA	TTTTTTGTCT	GATTCGGTTG	8520
TGTTACTTGA	AATGGCATT	GAGTAGTGAA	TACTTGGGTA	GTCGATTCCT	AGACCATTTA	8580
GGAAAGTCTT	GGCGCGGTTG	AGTCCGACCT	TGTTTAGAGT	TTCCACGGCT	GGGACGTTTC	8640
GCGATTGTTG	CAGGGCGTAT	TGCAAGGTGA	TGTTGCCAAA	GTAGCCCCTA	TCCCAGTTAT	8700
AAACAGGAGT	ATTTGTCCCA	GGGTAGTTAT	AGGGCTCATC	GTGAACGATA	GTAGCAGTTG	8760
AATCGTAGAC	ACCGTACTCC	AAGGCAGGAG	CATAGTCTGT	GATCGGTTTC	ATAGTTGATC	8820

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CCCAGTCGCG	GTTTGTCTCT	ACTGCTTGGT	TAATTCCGAA	GGAAACATTA	CTTGACTGAT	8880
GGCGTGCTCC	TAGCTGGGCA	ATGACTTTAC	CGTTAGAAAC	ATCAACAATG	GTAAGAAGCGA	8940
CTTGCAATTC	ATCGTCTGGA	TAGGCAACGT	ATTCGTCTGT	ATTGTAAATA	TCCCACAGAT	9000
GTTTTTGAGC	TTCTTGGTCT	ACATTTGTGT	AGACATCCAT	CCCAGTTGTG	AGTAGGTTAT	9060
AGCCTGTTTC	TTCTTCAACT	TGATTGATGA	CTTCCTTGAG	GTAATTATCC	ATGTAAGCAG	9120
GGTAATTACT	TGCTGATTTG	AGACTTTGTA	GTCCATCAGT	AATTGGTGTA	TTGACTGCTT	9180
TCTCATACTG	TTCAGCAGAG	ATGTAGCCTT	GATTTTTTCAT	TTCAGATAAG	ACCAAGTTTC	9240
GGCGGTCTTG	GGCTGCTTCT	GGATGTGAAT	AGGGGTCATA	TTGGTTTGGT	GCCTGAGGCA	9300
TTCCAGCCAG	CAAGGCTAAC	TGAGGTAAAC	TTAAATTATT	GAGGTCTTTA	CCATAGTAGT	9360
TTTGAGCTGC	TGTCTGCATT	CCATAGTTCC	CATTAGACAT	GTAGACCTTA	TTTATATAGT	9420
AGGTCAAGAT	TTCTTGCTTG	GTTGCTTTTT	GTTCTAACTG	AATCGCTAAC	CAAGCTTCCT	9480
GAGCCTTACG	AGAAATAGTC	TGGTCGGAAG	TCGAAGTTGA	AAAGTAAGTC	AACTTAATCA	9540
ACTGTTGGGT	GAGAGTTGAT	CCACCTTGGA	GGGAATTGCT	TTGCAGATTG	CGCAAGAAAG	9600
CTCCCAGGAT	ACGGATGGTA	TCAATCCCCC	TGTGGTCGAA	GAAGCGATGG	TCTTCGATAG	9660
AAACGATTGC	CTTAACCAAA	TCTGTGGGAA	TATCATTAGC	TTGGGCATTG	ACGCGGCGTT	9720
CAGAACCCAA	GTCAGCAATG	AGTTGATTTT	TATTGTCGTA	GATTTTACTA	GAAGTTGTTG	9780
CAACTAGTTT	ACTCTCGGAT	AGGCTAGGAG	CCTTGCTAAC	GTAGTAGAAA	AAAACCTCCTC	9840
CGCCTAAGAC	AATGGCTGCG	ATAACCAAGC	TTAAGAAGCT	AATGCTCAGA	TACTTGATTA	9900
GGCGCAGAAT	CGTTGGTTTG	TTCATCTTGT	TTTACCACCT	AATAAATGTT	CTTTGATAAC	9960
ATTGAGATAA	GGAATTTGAG	GGAAGGCACC	AGCCTTGATT	TCATATCCAT	ATTCTCGAAT	10020
ATATTCAAGT	GGCATTGATT	TTTGTCCCTT	ATCTTGATGA	TAGAAGCGAA	TCAAATCGAA	10080
TGCCGGCAAT	AAGTAGGTTT	CTTGCTGAGA	AGAAAAGTGA	AGAAGGACAA	AGCAGATTCC	10140
TTGTTGGGCA	AGGACTTGTT	CCATATGCTG	AATCTGATGT	GGATGAAAAT	TTTTTCATCGG	10200
AATCGCACGT	TTTTGTCTTG	TTTCCTTGAC	TTCAAAGTCG	ATGTAATATC	CATTATAAAC	10260
GCCAGAATAG	TCCGTCGTTG	AAGCTTGTCG	AAAATAGGCT	TCAACAATCT	TGGCACGACT	10320
TCGTTGTGGA	TAGTCCACTT	GTACGATTTG	AATAGGAGTT	GGTTTCTTAT	GTATAACAGC	10380
CAAGCCCTGA	GACAAATAGT	AGTCGTTGGT	AGCATTGATC	ATCTTTTCAA	AGGGTACCGA	10440
GCTCGAATTC	GTAATCATGT	CATAGCTGTT	TCCTGTGTGA	AATTGTTATC	CGCTCACAAT	10500
TCCACACAAC	ATACGAGCCG	GAAGCATAAA	GTGTAAAGCC	TGGGGTGCCT	AATGAGTGAG	10560



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CTAACTCACA TTAATTGCGT TGCCTCACT GCCCGCTTTC CAGTCGGGAA ACCTGTCTGT	10620
CCAGCTGCAT TAATGAATCG GCCAACGCGC GGGGAGAGGC GGTTTGCGTA TTGGGCGCTC	10680
TTCCGCTTCC TCGCTCACTG ACTCGCTGCG C	10711

(2) INFORMATION FOR SEQ ID NO: 146:

(i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 11887 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 146:

TACATTCATT CCATCGGCTA CTCCATAATA CTTAGATAAA ACCATAGCTG AAGTCGAATA	60
CGGATACTGT AAAGTATTAT CAATTTTAAT CAAATCATCA TTACCGATAA TACTTCTGAT	120
TGCTTTTGGT AGTATGAACC ATACGTTGGT GAAATCTCAG ATAATGAAGA ATCATTAGAC	180
TCTGGACCTT TTTCTAGTGT CTCACCTACC TCATATTCTT CACCCTTACT AGAAATAACA	240
CTCAAAGCAG ATACTGTCGA TAACTGGCTA GCCAATAAAG TACTCGCAAT AATTGAAATA	300
CCCAATTTTT TATAAACAGT TTTCTTCATT ATTGTATCCT CCTAATGTAA TTATAGCGTA	360
CTATTCTAAA TTTCTTAATC TACTATAGAA TCAAGAAATC TACCACCTTC TTTAAATACC	420
CTCCATTATC ACATAAACAG GTAAACTTTT CAATTAATGA CTGCGCTTTT CAATCACGCT	480
AGAGGTACTT GCTTGCTTCT TTGATACTAA GTTCAGCCAT TCTTTCCTTG TTTTCTCAA	540
TAAAGCATGT TACCCAAGTG GGATTCGTTT TGGAGTAGTC TCGCAGAGTC CAGCCAATGG	600
CTTTATTGAT AAAAAATTCT GTTTGGTTCA AGTTATGAAG GAGAATCTTT TCCATTAATT	660
GAGTATTGGT CTTCTCTTTT CTTAACAAC TGGTGGTCAAT AGCGACACGT CTCAGCCAGA	720
TATTATCTGA TAGGCTCCAT TTTATACTCA ATGAAAATCA AAGAGCAAAC TAGGAAGCTA	780
GCCGCAGTTG CTCAAAACAC TGTTTTGAGG TTGCAGATAG AGCTGACGTG GTTTGAAGAG	840
ATTTTCGAAG AGTATTAAGA TTATTTCTTC TAGTTCAGGG TGTTCATACA CCAAACCTCCC	900
TACTACTCGA TCTAGGATAT CTACCGTGTC CCACAAGGAT TTTGTCACGA CTAAGTCTC	960
TAGCTTAGGC AAATCGGTTT CCTTTAGATA AGACTGCATT GCTTTCAAAT AGTTAGCAGC	1020
CACATATTGG TATTTTCTAG GATCCTTTTC CCAGCAAGTG TCTGCAAAAT CCAATCGAT	1080
AATCTTTGTT TTTTTCGCTT CTGGAAAATA TTTTATAGAG TTTATTTCTT TCAGGCACCG	1140
CAATACCTAG AAAAGAAAAT TGATGGCGCA TATAGGCTTC CATGGACCTT GCTTTTTTAG	1200
AGTCTTTTGC TGCTTCTAGC TCCTCAAGTA AATCTGCTAA ACTCATCTAA AACTCCTCTT	1260

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GCCCCACCAA	ATGGTGCTGA	AAGGCATAGA	CAGCCGCCTG	GGTACGATCG	CTGACTTCAA	1320
GTTTGGCAAG	AATATTGGAC	ACGTGGGTCT	TGACCGTCTT	GAGAGAGATA	AAGAGGTCAT	1380
CTGCGATGCG	CTGATTTTCG	TAGCCCTTGG	CGATGAGTTG	GAGAACATCT	CGCTCACGCG	1440
CAGTCAATTC	TTCATGAAGT	TCCATATGAT	TGCGGTGGTA	TTCAACCTTC	TTGCTAACCT	1500
CTTGCTCAAT	GGCCAGCTCG	CCAGCAGCTA	CCTTACTGAC	GGCATGAAGC	AATTCATCTG	1560
CACTAGAAGT	CTTGAGCATA	TAGCCTTTGG	CACCAGCATC	TAAGACTGGC	ATGATTTTTT	1620
CATTGTCCAA	ATAAGAGGTC	ACAATCAAAA	TCTTGGCTTC	AGGCCATTCT	TTAAGGATTG	1680
CTAAGGTCGC	GTCAATCCCA	TTCATCTCAG	GCATGACAAT	ATCCATGACA	ATGACATCTG	1740
GACGCAGTTC	CAAGGCCAAG	TCAATCCCTT	GAGACCCGTT	GGACGCCTCA	CCCACAACTT	1800
CTACATCGTC	TTGGAGGTCA	AAGTAGCTTT	TCAAGCCCAA	TCGGACCATT	TCATGGTCAT	1860
CTACTAGTAA	AATTTTCATC	TTTACTCCTT	TATCATTCCT	TATCTAACAG	GGGAATACGG	1920
ATATCAACCG	CCAGCCCTTG	CTTGGGAGCT	GTCAAGAGTT	GAAGTGTTC	AGCCATATCT	1980
TCAACCCGCT	CCTTGATATT	TCGCAGTCCA	TAAGTCAAGT	CGTCTAAGCT	CCCTAACTGG	2040
AAACCAATCC	CATTGTCCAC	CACCTTCAGT	TGCAATTCAA	CATCTGTCTG	ATAGAGGTAG	2100
ACATCTAGGC	AAGATGCCTG	GGCATGGCGG	AGGGTATTGC	TAATCAACTC	TTGCAGGATA	2160
CGGAAGATAT	GCTCCTCGAT	TTTCTTAGGC	AATTTTCGTC	TATCTGCTT	GAGACTAACC	2220
CTAAGATCAC	TCTTGTCCTC	AAGCTCTTTT	AAAAGAATTT	GAATCCCTTC	TATCAAGCTC	2280
TTCTGCTCCA	GTTCAACTGG	TCGCAAATGC	AAGAGCAAAA	CCCGCAAATC	CTTCTGGGCT	2340
GTTTCTAAAA	TAGCTGTGAC	ACTCTGCAAC	TGGGTCTGCA	TCTTTTCTCT	ATCCAATTTT	2400
AAAGCCTGCT	GACTGATACC	CGATAAAATC	ATGTGGGCGG	CAAACAACCT	CTGACTGACT	2460
GTATCGTGCA	AATCCCGAGC	AATTCGCTTC	CGTTCCTTCT	CGATGATTTT	CTCTTCCTGA	2520
GCAAGGCTCT	GATTTTCAGC	TTTTTGAAGA	GCCTCTGTCA	AAAGGTTAAG	TTTACCTGAT	2580
AAGGACTTGA	AACTGGCATC	CAAATCTGGA	TCTGCAACCT	GAACCACTTC	TTGCCCTGCT	2640
AATAAACGCT	TGAGATTAGC	CTGCATTTTT	CTTAGAGAAA	GCTCTTCGAT	CCCTCGCCAA	2700
AACAGGGCTA	AGAGACAGGT	CATGGACATG	CTGAAAACCA	ACAATAAAAA	GACAAATTTT	2760
TCTGTTTTTT	CGACATCGTG	CAAAAAGATA	GACCAGTCAA	AATCAAGTAT	TTCCAGCAAG	2820
CTGTGGGAGA	AAAAAAAGAC	AAATAGGAAG	GAGGTGAGAG	CAATAATGAC	ATAGGCTTGT	2880
TTTTTTCATCC	TCTAACCACC	TCCACATCAC	CAATCATAGT	GGTCAAGAAA	ATCTTGACAC	2940
TCTTGTTACT	CTTGAGATAG	TCTTTTGTTT	CTTGATGATA	GTGTTTATTG	CGGAGGGCTC	3000

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GCTTGGGCTG	GTTGAAAAAA	ATCAAATCCC	CATAGAGACA	GTTAACGCTG	AGACTGACTT	3060
CCACATCTAC	AGGTACGATG	ATTTTGGTCG	TTCCTACCAT	CTTTCTGAGG	ATAATGACAT	3120
TGTCATGATT	GGTTAAGATG	ACCCTCTCCA	GATGAATAGT	GTCCTTGCCC	ATGAAGCGAA	3180
AGAGATTGAT	ATCATCGAAT	TGGCAAGTCT	GGTAGCTTGA	AAAATGATGA	AGATTTCCAA	3240
ACCAACGATT	TTTCTCCTTC	TTAACCGTCA	CGACCTCTTC	AAAAACCAAA	TTGGTCTGCT	3300
CTTTTTCTTG	GTTTCATCATC	GGGTAAAGAA	GAAAGAGGCT	ATAGATAACC	GCAACAAAAA	3360
TAGCTAGAAT	CACAAAAGGA	TTGAGCATAA	CGATGAAAAA	GAAGAGAATG	GTTGCCGCTA	3420
CTAAAAGAAG	ATTATTTCCC	TCTTTACCAG	TGTAGTAGCG	AATCAAAAGC	AAAAAGAGGA	3480
ATAGTATCAG	CAGAAAACGC	GAAAAATGCT	CTGATACCAT	CAAATCAGA	GCTCCTGTCA	3540
GAAGACAGGC	TTGATAAAT	AAAAAGATTT	TAAATTTTCT	CATAGGTTCA	TCCTCTCCCT	3600
TCTATTTTAT	CACAATTCAA	AAAAGTCACC	TCAGTCTGAG	GATGGAAAAA	AGGCGCTGGT	3660
TACGCCTTTT	TCATCTGATC	CTTTGCTTCT	TTTAATTTTC	CATAAAGAAG	ATAGTCTACT	3720
TTTTGTAGAT	CTGCTATGGT	GGCACAGTTA	AGGGAACACA	TAATCAAGCG	TAGATCTGCT	3780
TTCCAGCCTT	GGACAATGCC	AATCACTTCT	TCAACTGTGT	AGGTTTCAAC	CAATTCCAGA	3840
ACGGTTCGTG	ACAATCCCAC	AGCCTTAGCA	CCAAAAACCA	AGCACTTAAT	CATATCCAGC	3900
GGATTCCGAA	CCCCTCCACT	AACCAAGAGT	TCGACCTTAT	CTTTCCATTC	TTGGGCATTG	3960
AGAAGGGCCT	GCATGGTAGA	CTGACCCCAT	TGATTGAGGT	AATCACGCTG	GCCACTACGA	4020
CGGTTTTTCGA	TATAGGCAAA	GCTGGTGCCA	CCACGACCCG	ATAGGTCCAC	TGTACGAACA	4080
CCGAATTCAT	AGGCTCTTTC	GATTGTCTTG	GCATCCATTC	CAAAGCCCAC	TTCCCTTGAGG	4140
ACAATAGGAA	CGGGAATTTG	CTTGCTATAA	TCTGCTAGAT	GCGATTGCCA	GCTTCTAAAC	4200
TTCCCTTTCTC	CCTCGGGCAT	GAGTAATTCC	TGCATGACAT	TGACATGCAC	TTGCAATAGA	4260
ACAGGATTCA	TCTCTTCTAC	AGTCTGAAGT	CCTAACTCGA	CAGGCTTGTC	CAATCCAATA	4320
TTGGTTCCAA	GGAGGAGATT	GGGATGACTA	GACTTGACAG	AAAAAGAATC	ATCCGTTGGA	4380
TTTTTTGAGGG	CTGCGCTATA	AGAACCCGTT	ACAAATAAAA	TACCACAGGA	TTCCGCCACC	4440
TGAGCCAGCT	TTTGATTGAT	TTCTCTTCCC	TTATTACTTC	CACCAGTCAT	GGCATTGATA	4500
TAAAAAGGAA	AGTCCCACCT	TCGACCAGCA	AACTCTGTCT	AAAGATCGAT	TTCATCCAGA	4560
TTGTAAAGAG	GCAAGGAAGA	ATGAATCAGC	TCCACCTCAT	CAAAGCTATT	ATAGGAACTT	4620
TTCTGCTCAA	GGGCATAGAG	GATATGCTCG	TCCTTACGAT	TTGTCGTCAT	GTCCTATCCT	4680
TTCTTGATAT	AAGAGCTCAA	TCCCCAGATC	GGCCCAACGA	TTTTTTAAGG	TTTTGGTTGA	4740
TTGCGCATCA	AAACTCAGGG	CGATGCCACA	GTCACCACCA	CCAGCACCAC	TACTCTTGCC	4800

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AACGGTCTGC	AAATCTTGAC	TGGCTTCTTT	CAACTGTCTA	AGCAAAGGCG	TGTAAATATC	4860
TGTAACAAG	CCTTCTAAAA	GCTTGCTGGC	TACTTCTACT	TGATCGATAA	TCTTTTCTGA	4920
TTTCCCCTGT	TCCAAGGCTT	CTACCAGAGA	AGTCACCGTT	TCTTTTGAGG	AAGTTAAAAA	4980
ATTTTGATTG	ATATTTTGCT	TGATTTGCTG	GACCATGTGA	CTCGATACAG	CCACTTCCTT	5040
GGTCCATCCC	ACTAAGAAAT	CACATTCTAA	AGTTGGTTTC	ACTTGTGAAA	TTGAAAAGCC	5100
CCAATCACGC	TCCAGAACTG	TCGCCAAGTT	TTCTTCTTCT	AACCAAGCAG	CCACCTTCTG	5160
GCGATCAAAT	GACTGGTAGA	GAACCAAATC	CTCTGCCACA	ATACAGGCAA	GGTCGCCCAT	5220
GGAACCATTG	TCTCCTCGCT	TAAGCAAGAC	AGCGCTAGTC	AGCTTGAACA	AGAGCTCCTG	5280
ATCAACAGAA	ACATCATACA	GAGCCAGTAA	AGCCTTGACA	ACCAAGACAA	CGACGCTGCC	5340
ACTAGAACCT	AGACCAAAT	TTTCCCTTTC	TCGTTCCATT	TTGCCACAGA	TTTCTAGAGA	5400
AAAAGGTCTT	AAATTCTGAC	CACGAACAGC	GAGGAAGTCT	CCCATCAAAG	CAATCGTTTC	5460
TTGAATCAAG	CTATAGTCAG	GATTAGGCCT	TAAGTCCACT	GCGAAATCAA	ACATATCTGA	5520
ATAGATACGG	TAGCTGTCAG	AAAAAGCAAT	CTCAGCCCTC	ATATAGATGG	GAATATCCTT	5580
TATCAAAGCT	AACTGCCCTG	GCTCTAAAAT	AGCATATTCA	CCTGCCCAAT	AGAGTTTTC	5640
GCAAGTTTTA	ACAGCAATCA	TCTTGACTCA	AATCCTTTGT	TTTGTACACA	ATCAAGCGAT	5700
AACGATGACC	GAAAATTTCT	GATAAATGCT	CCAAGTCTTT	CTCCTGACAG	AAGACCTTAA	5760
CATTGGGACC	AGCATCCATG	GTAAAGTAGC	AGGCCTCTCC	TTTCTCACGA	AGCTGGCGAA	5820
CAAAGGCCAT	AGCCTCATAA	GAGGCATCCG	TCAGATAAGA	AAAGGCTGGA	CTAGCAGTCT	5880
TTGTCTGAGC	ATGCATAGCC	AGGGCATTTT	TCTCCGTAA	TTCTCCAATC	TTGGCAAAT	5940
CATTTTCCTT	GAGATAAATC	AGCATATCCT	GATAGTCCTT	CTCAGACTGA	CGAACCCAGT	6000
CGTCGAAAGT	CGTCGAGGTT	TCCACACAAA	GTTTCATCCC	GTCACGGCTA	GAGATTGGTT	6060
TTTTCTTGTC	CTCTAGCACC	AACATAATCA	TAGCTAGTTT	CAAGTCTGTC	TCTACAGGGT	6120
AAATTTCTCC	ACTATCCTTA	TCCCAGGCTC	CTAGTGGTCC	ATAAAAACTC	CGAGAAGAAG	6180
AACCTGAGGC	AAATTTGGCT	TCCTGTGCCA	ACTGACTTCT	ATCCAATCCA	AGCTTGAAAT	6240
AAGCATTACA	AGCCTTGACC	AGGGCGGACA	AACCACTAGA	ACTTGAGGAC	AGACCCGCTG	6300
CCGTAGGCAT	ATTGTTTTGA	GTATCGATAC	GGACAAAGCC	CTCACCAGCT	GGACGATAAC	6360
GGTCAATAAT	CTTACTCATC	TTGGCATGCT	CGACCTCATT	TTGTAGCTGA	CCATTGATGT	6420
AAAATTCGTC	AGCTGTTACA	TTGGCTGGTA	AAGGCGACAA	GGTCGTCTCT	GTATACATAT	6480
TTTCCAAAGT	TAGAGAAATA	CTGCTAGTAG	CAGGCACCAT	CTCTTTTCT	TTTTTCTTTC	6540



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CCCAATATTT	GATAATAGCA	ATATTTGCGT	AGGAACGTAC	TGTTACAGGC	TCTCTATCCA	6600
TGTCTGAACA	GCTCCTTTCT	CTTCTAATCT	TTCTGCTAGT	TCTTGTGCGT	GTGTCAAATT	6660
GGTTACCAAG	GCTATGATAC	AACCTCCTAG	CCCACCACCG	CTCATCTTGG	CACCCAGAGC	6720
ACCATGGCTA	AGAGTCGTTT	CAACCAAAAA	GTCTGCCTCA	GGGCTACTGA	CTCCAATTTT	6780
TTTTAAATGT	AAATGCGCTT	GACTGAGGAT	TTGTCCCAGT	CCTTCAGCAT	CTTTTTGTGA	6840
AATCGCAACT	TCTGCTTGCT	GGGTTAATTC	TCCCAAGGCA	TGCAAAAACG	GTAGGGCATC	6900
CTTGCCCTTA	TTTTGAACCA	CTTGGATGGC	TTACAGAGTA	TGACCATAAA	CACCCGTATC	6960
GGCAATCACC	AAATAGGCGG	ATAAATCCAT	CTCAAGTTCT	GTAAATCCTA	CGTTCTTGAT	7020
AAAGCGAATA	GGTTGGTCAC	TAAGACAGGT	CTTAGCATCC	AAACCACTAG	GATTCATATG	7080
GGCAATCATT	TCAGCTCGAT	TGACCAAGAT	TTCTAGTACA	TCATGAGGCA	GATCAGCCTG	7140
ATAGTAGTCA	AATACTGCAC	GAATGGCCGC	TATGCTGATA	GCCGCTGACG	AACCCATCCC	7200
CCGTTTCTCA	GGGATAGCCG	AGTCAATCTC	ACAACGAATG	CAGGCTTCTG	TGATATTCAA	7260
ATACTCCAGT	GAGGCATAAA	CCGCCATGGA	CAAGGTATCC	TCCTCATAAA	GGCGCCAAGG	7320
ACTCTCTGCA	GGAACCTACCT	TACAGGTCAC	CTCCACCTCC	AAAAGAGGCA	GGGAAATGGC	7380
AGGATAACCG	TAAACGACCG	CATGTTCCCC	TATTAAAATT	ATCTTACTAT	GTGCCTGACC	7440
GACACCAACT	TTTTTTGTCA	TTTTTTCCTT	TTACTAGACG	AAAAAACGTC	TTATTTTTCA	7500
TACAAGTATT	AATTCTTTCC	TATCTATTTT	ATTATATTTT	CACAAAAAAA	GCGATTGT'TT	7560
CCATTACAA	TCGCTTCTTT	CATTATTGAA	CCCATTCGCC	ATTATAGTTG	ACAGAATAGC	7620
CATCTACGGT	CGTATTCACT	GCCAAGGCAC	CTGAGCGCTA	TAAGCGTAGT	ACCATCTGCC	7680
ATTGACCTGG	AACCAACCTG	TCGTCATAGA	ACGACGAAAG	AAACTCCATA	CCATTAAGTA	7740
AAGAGGAAAG	TCGTGAGGGA	GCATGCGCCA	TTGACAACCT	GTTTTAGTGA	CGTACAAAGT	7800
CTCATTAACA	AGTACTCGTT	TCGGCCATTT	ATAGGTGCGG	TGTTTGGAGA	AATAGGGTTC	7860
AATCTTCGCC	CATTCTTGAT	CGTTTAAATC	AGTATCATAT	GCTTTGCGTA	TCATAACTCT	7920
AGCTTAACAT	TTTTTTGTGA	ATACAGGTTC	TAAATAATCG	ACCACGAAAA	TTTCTTAAGT	7980
GGAAAACGCC	TTATGAAGTA	TGCTACGGGA	AAGTTATGCA	CTTAATTTGA	CAATTCAAGA	8040
TGTAAAAATA	TATACTATAG	TAGATTGAAA	CTAGAATAGT	ACACCTCTAC	TTCTAAAATA	8100
TTGTTAGAAA	TCGATTTGAC	TGTCCTGATC	GATTTATCCT	GTTATTATCT	CATTTTACTA	8160
TAATATTTGA	TAAGTTATCC	TAAAAGTATT	ATTATGTTGT	TGTGTTATAG	ATTGATTGAA	8220
TCTAACTAAA	GGATCCTATT	CAATTACTAG	AACTATCACA	TACTCAAGGT	CAGCTCACAG	8280
ATGAGCAACT	ATTTTGGTTA	CAATGTCTAC	TAAATTTAAG	TCAAACAAAT	AATTTAGTCA	8340

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AAATTAAAAA	AATAGAGGAA	CATAAATATG	ATTACAAAAC	AGAATGTAAT	AGTGTTCTAC	8400
AATTTTACT	AGATAAAACT	GTAAATTCTG	AAGGAAGGAT	CACTTCTTCA	ACAGAATTTG	8460
GAAATTTTCGT	AAGTAATTTA	TCATTCCAAC	ACGGAATAGC	TGGACTACTG	TTTCCTCTAA	8520
ATAAATTGTA	CCCCCAGAA	CTGGATTCTA	AAATACTCTC	TATCATCAAG	AAGGCAGTGA	8580
CAATTAGAAC	GACACACACA	TATGAATATC	AATACTCACT	GCTATTTGGT	GATGCAGGCT	8640
ATCTATGGTT	ACTCCTACAT	TTATTTTCTA	TCAGTAAAAA	TCAATACTAT	CTACAATTAG	8700
CAAACGTCAC	CGCTAAAAAA	TTAATAGAGA	ATTATGATAC	TCTAGAGGAA	ATAGACTTTG	8760
CATTGGGAAA	ATCTGGTGTC	CTATTATCAT	TAATAAAATA	CTATCAATTT	ACCAATGACA	8820
ATACTCTTAA	AATTTTCATC	CACAATAGTA	TAGGGGAAAT	TTATCATTAT	TTCTTACAAA	8880
GAGATACAGC	CAAAGAAAGC	ATTTTAGACT	ATAGCTTTGC	TCATGGATAT	TGTGGAATTG	8940
CATATGCTTT	ATTTGCCTAT	TCTAAAGTCT	TAGAACCTTC	TATGTTTTAT	AATGATCTCC	9000
ATACATTCCA	TACTGAATTA	AAAAAATTAT	TAGAAAAAGT	TACTTCTAAT	ACTGAAAATT	9060
TAGGAAATTT	ACAACCTTCT	TGGTGCAAAG	GAATTTCCGG	AATAATCTTA	TATCTTTGTA	9120
TGTACGATTG	TGACGGAAAC	AAAGATATTA	TTAGTAAATA	TCAAGAATTT	GTTTTTAACC	9180
ATCATCTAAA	AATGATGACA	GGATATTGCC	ACGGAATAAC	TAGCTTACTA	CAAACCACTG	9240
TCTACAATCA	AAACAAATTA	CTGATGAAAA	AAATCCAACA	GGTAATTTTA	GCATGTTCTG	9300
AACGAGATGA	TCACGGTTTA	CTGATGTTTC	AAGGAGATAG	TGGTAAAGCA	GATTTGTTTG	9360
ACTTCGGAAT	AGGAAGCATG	GGGTATATTG	GTGTCTATTA	AATAATAAAT	TCCCATTCTG	9420
TGTGCAGACA	TAAGGAGAAA	AGTATGAAAT	TATTTTGGAC	AAACAACATA	TATAGACAGT	9480
TGCTGCTAAA	CAGCTGTTTT	TCATCATTCG	GCGACAGTAT	TTTCTACCTC	GCCATTATCA	9540
ATTATGTGGC	TCAGTACAAT	TTGCTCCGC	TAGCGATTTT	ACTGATTTCC	ATTTTCAGAGA	9600
TGGTTCCCCCT	ACTATCGCAA	CTCTTTCTCG	GGATTCTAGG	AGATTTTCAA	GAAAATAGAG	9660
TCAAACACGC	ACTCTGGATT	GCCAAAATCA	AAATCCTGCT	CTACGCTATT	TTGACAGTAT	9720
TTCTCGTCTT	GTCGCCCTTT	TCATTAGTTT	CAGTCATTAT	GATTGTCATC	ATCAACCTCA	9780
TCTCTGACAC	CTTGAGCTAC	CTGTCTGCCT	ACATGATGAA	CGCCCTCTAC	ATCAGTGTA	9840
TTAAGGACGA	CCTGCATGAT	GCCATGGGGT	TCAGGCAGTC	TCTGATGAGG	GTTGTCCGTA	9900
TTGTGCGCAA	TCTGGCTGGC	GCATTCCTTA	TCAATGTTAT	AAGTATTCAA	ACTATTTCCC	9960
TTATCAACAC	TCTGACTTTT	GTCATTGCCT	TTTTGGGCCT	GTATGTTATT	CGACATACCT	10020
TGTATGAGGT	TGAAAAAAGA	ATTGAAATGT	CACATACAGC	ACTGAGTTTT	AAGAAATATT	10080

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TTCAACATCT	TAAACAGTCG	CTGGCTGTGC	TCCTGAGGTT	AAAAGATACC	GTCATACTAC	10140
TGTTTCTGAC	GACCAGTATG	ATTGCCATCT	TGGATGTGTC	CCCTCGGCTG	ATTGCCCTCC	10200
GCTTCATCCA	ACAGACACTA	GCACAACTGA	GCATTGGGCA	ACTCCTCGCC	CTGCTCTCCA	10260
TCATCATGTC	TTGTGGAGCT	ATCCTTGGA	ATATGACCAG	CAGTAATCTA	TTTAAAAATA	10320
TCCGTTTCAC	GCACCTCTTG	GTTTTCTGTG	AGATTTCCCT	ATTGACTCTA	ATAACTAGTA	10380
TCCTTTGTCA	AGCCTATATC	GTAATTTTCA	TGACCAGTTT	CATCAGTTCT	ACGATTATCG	10440
GCATTCTCAG	CCCTCGCCTA	CAAGCAGCTG	TCTTTGCCCC	TATCCCCAGT	GACAAGATGG	10500
GGACGGTGGG	CTCTGCTCTG	AGCACAGTGG	ACATTCTCGC	CCCGTCCCTG	CTCTCCCTAT	10560
TAGCCCTATC	CATAGCATCG	GGCGTTTCGG	TGCAGTTAGC	ATTGATATTT	TTGTATCTTA	10620
TTTTAATTGC	TCTTATCTTT	TGTCAATGGT	TAGTCAAGTT	CAACACTCAT	AACTAACGAA	10680
AAAGCATGTG	TAGATTTTAC	ATGCTTTTAA	TCTCCCCAAT	CGTCAGGTCA	AGTACAACAA	10740
AGTCACTTCT	TTGATTAAGC	GAGTGTTCTA	ATATAATTAT	AAGCGCCCTG	TCATTACCGA	10800
ACCCATTTCG	CATTATAGTT	GACAGAATAG	CCATCTACGG	TCGTATTAC	TGCCAAAGCA	10860
CCTGAGCTAT	AAGCATAGTA	CCAGTTGCCA	TTGACCTGGA	ACCAACCTGT	CTTCATGTCT	10920
CCATTACCTG	CATTTAGGTA	GTACCAAGTT	GAACCATCTT	GATACCAACC	AGTTGCCATA	10980
GCTCCTGATG	AACGGAGATA	GTACCATTTG	TTCCCAAGGT	TTTGCCAACC	TGTTTTTCATA	11040
TCGCCATTTG	GGTGGTCTAA	ATAATACCAA	GTGGTACCTT	CCTGATACCA	GCCAGTGGCC	11100
ATTGCTCCTG	AGGAACGGAG	GTAGTACCAC	TTATTACCTA	GATATTGCCA	ACCTGTTTGC	11160
ATAATACCAG	TTGTTGGATC	TAGGTAGTAC	CAAGTCGAAT	CATCGTTTAT	CCACCCCGCA	11220
CGTCTTTCAC	CACCAAGGTA	GTTTTCTCCA	TTAATTTCCG	TCTTAGCTAG	ATAATACCAG	11280
TTAGACTGAT	CATAAAGCCA	ACCTGTCTCT	AAAGAATGAT	TTTGATTAAA	GTAATAGTTC	11340
GTATAATAAC	GCTTCTCTTC	TTTATCTTCT	GAATCTTCAC	GTTTTTCCCC	GTAATAGTTC	11400
CCAACACTGT	CTTTAGTTTT	AATCTCTAAT	GTTTTCCAAC	CAACAAACTC	TTGTAGCACT	11460
CCATTTTTAT	CGAAGTAGTA	CCACTCTGAC	TTTGGAACAA	CTTCTAATCT	GATACCATTT	11520
GGGTAAGGAC	CAATTGTA	ACCTTTAGAT	GGAAACGGGA	TATATTGCCA	GCCGACAACC	11580
ATCTCTCCAG	ATAGAGAATC	AAAATAATAG	TACTTACCAT	CAATCACTCG	CCAGTAGGTT	11640
TCTTTGAGGT	CCCCCTTTTT	GTAGTAGGTT	CTTCCGTTTT	CTTGGACAAA	CTGCCATCCT	11700
TCAGAATCAT	CTGCAAATAC	TGTACTGGTC	CCTAGCAAAC	CAAAGAAAAA	TACTGTCAGT	11760
CCAACCTGCA	TAGTTTTTTT	CAAAATTTTC	ATCTATATAC	CCTCCAATAT	TAAATCCACT	11820
CACCAGATGA	GGCGAAATTA	TAACTTTTAC	CATCGATAGT	TTGGCTACCT	GTAACCATTG	11880

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CTCCAGG

11887

## (2) INFORMATION FOR SEQ ID NO: 147:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11340 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 147:

CCGGTATGTT CTGGAATACT ACCAATCTAA GCTGGCTGTG CCCTACAGTT TTACAACCCT	60
GTACGAATAC CTTAAGGAAT ATGACCGATT TTTCAGCTGG GTTTTGGAGT CTGGTATTTC	120
AAACGCTGAT AAAATATCCG ATATTCCTTT ATCAGTTTTC GAAAATATGT CTAAGAAAGA	180
CATGGAATCC TTTATCCTTT ATCTACGTGA ACGTCCCTTG CTGAATGCTA ATACAACAAA	240
ACAAGGTGTT TCACAGACAA CTATCAATCG AACCTTATCA GCACTTTCTA GTCTTTACAA	300
GTATCTAACC GAGGAGGTG AAAACGATCA GGGGGAACCT TATTTCTATC GTAATGTAAT	360
GAAAAAAGTT TCCACCAAGA AAAAGAAAGA AACCCTTGCT GCCAGAGCTG AAAATATCAA	420
GCAAAAACCTC TTTCTAGGTG ATGAAACAGA AGGTTTTCTA ACTTATATCG ATCAAGAGCA	480
CCCACAACAG CTTTCAAATC GAGCTCTCTC ATCATTCAAC AAAAATAAAG AACGAGATTT	540
AGCCATTATT GCCCTTCTCT TGGCATCTGG TGTTCGCTTA TCTGAAGCTG TTAATCTAGA	600
TCTAAGAGAT CTCAATCTAA AAATGATGGT TATGATGTT ACTCGAAAAG GTTGCAAACG	660
TGACTCAGTC AATGTCGCTG CTTTGTGCTAA ACCTTATTTA GAGAATTATC TGGCCATTCTG	720
GAATCAACGC TATAAAACGG AAAAAACAGA TACAGCCCTT TTTTAACTC TCTACAGAGG	780
TGTTCCTAAT CGTATCGATG CTTCTAGCGT TGAGAAAATG GTTGCTAAAT ACTCAGAGGA	840
TTTTAAAGTG CGTGTAACAC CCCATAAACT GCGCCATACA CTAGCAACTA GGCTCTATGA	900
TGCGACTAAA TCACAAGTTT TAGTCAGTCA CCAACTAGGA CATGCTAGCA CACAAGTCAC	960
TGACCTCTAT ACCCATATTG TTAGTGATGA ACAAAGAAT GCTCTGGATA GTTTATGATT	1020
TTACGTATTT TAAATTATGT AAATAAATAT CAAAAAAGA AGTTGGCCAA CTTCTTTTTC	1080
ATTTATCCAA CTACCGCTTC AGCGATTTCT TCACGGCTAA TACCAGCGAA GTAGCGTGTG	1140
ATATCAATGG TTTTTCGCGC CTTAAGAACA TCTTCGCGTT CGTATTTTAC CCCACGAAGG	1200
ACATCTTCTA CTGCAGCAAC GTCTTCAATA CCAAAGAAGT CACCATAAAT CTTGATGTCT	1260
TGGATTTTTG ATTCAGTAAC GTTAGCAAAG ACTTCAACCT TACCACTAGT GAATTTGATT	1320



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CCACGACGGA	CGTTAAATTC	AGGTGATTTA	CCATAGTTCC	AGTCCCAAGT	TCCAAACTTA	1380
GTATCCTTGA	TGCGATTGAT	TTCGGCCAAT	TCTTCTTCTG	AAAAGACGTA	TTCAGTCATC	1440
TCTGGGTACT	CTTTTTTCAT	GTATTCCAAG	AGTAAATCAC	GGAATTTTTC	GACTGTGATT	1500
TTTTTTGGTA	ATTCATTGAT	AATATTGGTT	ACACGGGCAC	GGACGGATTT	CACACCTTTT	1560
GATTCAAATT	TATCTTTTGA	AACCTTAAGG	GCATTTGCGA	GGACTGACAA	ATCAACGTCA	1620
AAGAGCAAGC	AACCGTGGTG	CATGATACGG	CCGTTGATAT	AGGCTTGGGC	ATTGCCACAG	1680
AACTTCTTAC	CATCAATCTC	AAGGTCATTA	CGACCTGTGA	ACTCAGCTTT	AACCCCAAGT	1740
TGAGCCAGGG	TATTGATAAC	CGGAGTTGAG	AAGCTCTTGA	AGTCAAATGC	CTTATTTTCA	1800
TCTTCTTTGG	AGATGATCGT	GTAGTTGAGG	TTATTTAAAT	CGTGGTAAAC	AGCTCCACCA	1860
CCACTAATAC	GGCGAACTAC	CTCAATACCA	TTTTCGCGAA	CATAATCACG	GTTGATTTCT	1920
TCGATAGTGT	TCTGGTGACG	ACCAACAATG	ATAGATGGCT	TGTTAATCCA	AAGTAGGAAG	1980
ATTTGATCCT	CATCCAAAAG	GTGTTTAAAG	GCGTATTCTT	CCAAGGCAAT	ATTAAAAGCA	2040
GTGTCATTTG	AATGATTGAT	AATGTATTTT	ATGATATCCC	TTTACTTTAT	ATGATAGAAA	2100
CTGGAAATAA	CCTTCCAGTC	TAATCTATCT	TCGTTTTATT	TTTTCTTAGG	TGAATGGATG	2160
GCCATTCCTA	GAACATCTGC	AAACGCTTCG	TACATCACTT	CAGAGTAAGT	TGGGTGCCCCG	2220
TGGATGGTCT	TCAGCATTTT	CTCAACAGTG	ATTTCCATTT	CGATGATGCT	TGATGCTTCG	2280
TTTATTAATT	CTGCGGCTGC	AGGACCAATA	ATGTGTACAC	CAAGGATTTT	TCCGTATTTT	2340
TTATCAGCGA	TAACTTTTAC	GAAACCTTGA	GCTGCGTCAG	ATGCAATAGC	ACGACCGTTA	2400
GCAGCAAAGT	TAAACTTACC	GATGGCAACA	TCGTATTTCT	CACGGGCTTG	TTCTTCTGTC	2460
AAACCTACTG	CTGCTACTTC	AGGGAGAGTG	TAGATGGCTG	CAGGAGTCAA	ATTCAATTTG	2520
GCAACTGCAT	GATTTCCCTT	AAGGGCATTT	TCAGCGGAAA	CTTCACCCAT	GCGGAAAGCT	2580
GCGTGAGCCA	ACATCTTAGT	ACCGTTGATG	TCACCTGGTG	CATAAATGCC	TGGAAGTGAA	2640
GTTTCCATGT	ATTCGTTGAC	CTTGATACAA	CCACGATCCA	ATTCAAATC	AACCTCTCCA	2700
ATACCTTCAA	GGTCTGGCAT	ACGACCAATT	GAAAGAAGAG	CTTTGCTTGC	GATGATATCG	2760
TCTTTTCCTT	CAACCTTGAT	ACGAAGTTGA	CCATTTTCCT	CAATGATTTT	TTGCAGTTTA	2820
GTACCAGTCA	AGATGGTCAT	TCCTTTACGC	TCAAGAATCA	AGCGAAGGTT	CTTAGAAACT	2880
TCCACATCCA	TAGCTGGAAC	TATACGGTCC	ATCATTTCTG	TAACAGTCAC	TTTTGAACCA	2940
AATGTCATGA	AGGCCTGACC	GAGTTCGATA	CCGACAACTC	CACCACCGAT	GATAACAAGG	3000
CTTTCTGGCA	CTTCGTTTAT	TTCAAGAATG	TCATCACTAG	TCATGACAAG	TGGAGATTCC	3060
ATACCAGGGA	CGTTGATCTT	GTTGACTTTT	GAACCACCAG	CAAGAATGAT	TTTCTTGATT	3120

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TCAAGCAATT	CAGAACCATT	TACCAAGACG	TTCTTGTCTT	TAGTGATTGT	ACCAATTCCT	3180
TTATGAACAG	TAAGTCCGTA	GCTACGAAGA	AGTCCTGCAA	CACCACCAAC	AAGAGTATTA	3240
ACAACTTTAG	ATTTAGTTTC	TAAAAGTTTT	TCCATATCAA	CAGTGAAGTT	AGGATTTTCA	3300
ATCACGATAC	CACGATTTGC	AGCATGACCG	ATATTTTCAA	TAATTTTCAGC	GTTATGAAGG	3360
TAGGTCTTGG	TTGGAATACA	TCCACGGTTT	AAGCAGGTTT	CACCAAGTTC	AGATTTCTCA	3420
ACAAGGGCAA	CCTTACCGCC	GAATTGGGCA	GCTTTAATGG	CTGCAACATA	ACCAGCAGGA	3480
CCTCCACCAA	TCACAACGAT	ATCAAAAGCA	TCATCGCTCT	TACCATCATC	GTTTGAGGTA	3540
CTTGCTACAG	GTACAGGGCT	AGCTTCTGGC	GATGCTGCTC	CAGCTGTTGG	GATGTTTTCC	3600
CTTTCTTCAC	CAAGGTAACC	GATAACTTCC	GTTACAGGGA	CAGTTTCACC	ATCTCCTTTG	3660
AGAATGGCAA	TCAAGTACCC	ATCTTCTTCG	GCTTCCAATT	CCATGCTGAC	TTTATCAGTC	3720
ATGATTTCCA	AAAGGATTTT	TCCTTCTTTT	ACAAATTCTC	CGACTTTTTT	ATTCCATTGG	3780
ACGATTTGTC	CTTCTGTCAT	ATCCACGCCG	GCTTTTGGCA	TAATTACTTC	TAAGGCCATG	3840
TCTTCCTTCC	TTTATCTATA	TCTTAAAAAT	GAATACTCTT	GCTCTTAAAT	TAACATTGAG	3900
ATTGGCGTTT	CAATCAACTC	TTTCAAGTCC	TTCATAAACT	TAGCACCAGC	CATACCATCT	3960
ACGACACGGT	GGTCAATGGT	TAATCCTAAA	CTCATGATTG	GGCGAATCAC	AATTTACCA	4020
TTGACGACAA	CTGGCTTCTC	GATTGTCGAA	CTGACACCAA	GGATAGCTGA	GTTGGGTTGG	4080
TTAATAATCG	GACCAAAGGA	CTGAACACCA	AACATTCCCA	AATTACTGAT	TGTGAATGTT	4140
GAATTTTGTA	ACTCACTTGG	AGCCAATTTA	CCATCCAAGG	TACGGCCAAT	AACATCCTTA	4200
AAGGCTACAA	CCAGTTCTGA	AAGACTCATC	TTCTCAGCAT	TGTAAACAAC	AGGTGTCATC	4260
AATCCATTAT	CCATCCCAAC	TGCCATGGCA	AGATTGACAT	AGTTGTGAGT	GATAATAGTC	4320
TTGCCATCTT	CTGTCAATGA	AGCGTTGATG	TATGGGTGTT	TCATAAGAGT	CTTAACAAC	4380
GCAAGCGAAA	GAAGGTCTGT	TACAGTAGTC	TTCTTCCCAG	TTGCTTCCAT	GATTGGCTCA	4440
AGAACCTTCT	TACGAAGAGC	CAACATTTCA	GTCATATCAA	CTTCATAGTT	GAGGGTGAAG	4500
GTTGGCGCAG	TCAAGTAAGA	TTCAACCATG	CGTTGGGCAA	TAACCTTACG	CATTGGTGTC	4560
ATTGGAATAC	GCTCGATTTT	ACCATATGGT	GTTACGTTAT	CAGGGACTTC	TTCCACTTTT	4620
TCAATCTGAG	CAGGAGATTT	GATGCTATCG	TTTTCGATAT	TTTCAGGAAG	CAGGGCCAAA	4680
ACATCCTTCT	TCATGATTTT	ACCACGATGA	CCGGTTCCTT	GGATTTCCCTG	CCAAGCAATG	4740
TTATGTTTCA	GGGCAATTCG	TTTTGCAAGT	GGCGAAATGC	GAACCACGTT	TGTGTCTTTA	4800
TAAGTTTCCA	CGTCTTCTTT	GTGGACACGA	CCGTTTGCAC	CTGAGCCAGA	AACGTCGTAG	4860

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AGGTTTATCC	CTAAATCATC	CGCTAACTTT	CTAGCTGCAG	GAGTCGCTCT	TAGCTTGTCA	4920
TCAGCCATGA	CCTCTCCAAT	TCTATTTATG	ATACAAAGGG	CGTCAAAAGC	GACTGAAAAA	4980
TAGGAAATCG	ACGATGGCTT	CGATGAAGCC	AAGGAGATTT	ATCTTTTTTC	CGATCTTTTA	5040
GCCCGTGCTC	TAATCTAAGA	TATTAATGAC	GAAGAGCTCT	GCACCTAAAA	GATACAAAGT	5100
TTCTCGTCAG	CTTTATTTTA	TTTACATAAC	TTATCTTATG	TAACCCTATT	CTTTGTTATA	5160
AGTTTTTCGG	ATTGCATCTT	TGATACTTTC	AACTGTTGGA	ATCATTGCAT	TTTCTAGGTT	5220
TTGTGCATAA	GGCATCGGCA	CATCTTCTCC	TGCACAACGG	CGAATTGGTG	CATCTAGATA	5280
GTCAAATGCT	TCTGATTCTG	AAATAATAGC	TGAAATTTCA	CCGATATAGC	CACTTGTTTTT	5340
GTGGGCATCG	TTGACCAGAA	CAACCTTACC	AGTCTTCTTC	ACTGAGTTTA	TGATGATATC	5400
CTTATCAAGC	GGAACAAGGG	TACGTGGGTC	AACAATTTCA	ACTGAAATTC	CTTCTTCTGC	5460
TAATTCTTCA	GCAGCTTGAA	CCACACGGCG	AAGCATTTTTT	CCATAAGTAA	CAACTGTTAC	5520
ATCCGTTCCT	TGGCGTTTGA	TTTCACCAAC	CCCAAGTGGA	ATTGTGTAGT	CTGGATCAAC	5580
TGGCACTTCC	CCTTTTTGGT	TAAATPCTGA	CTTGTA CTCA	AGTATAATAA	CTGGGTGTTT	5640
ATCACGGATA	GAAGACTTAA	GCAGGCCTTT	CATGTCCGCA	GGTGTTCAG	GTGCCACAAC	5700
CTTAAGTCCT	GGAATGTGAG	TAAACCAAGA	CTCTAGAGAT	TGTGAGTGCT	GGGCGGCAGA	5760
GCCAACTCCG	TTACCAGCTG	CACAACGAAC	AGTCATTGGA	ACCTGACCTT	TACCACCAAA	5820
CATGTAACGT	GTTTTAGCAG	CTTGGTTGAC	GATATTGTCC	ATGGCAATAA	CAGAGAAGTC	5880
CATGAAGGTC	ATATCGACGA	TTGGACGAAG	TCCTGTCATG	GCTGCTCCTG	CTGCTGCTCC	5940
AGAGATGGCA	GCTTCAGAAA	TCGGACAGTC	ACGGACACGT	TCTGGACCAA	ATTCTTCAAG	6000
CATTCCAACA	GAAGTACCGA	AGTCTCCTCC	GAAGACACCG	ACGTCTTCTC	CCATCAAGAA	6060
CACATTTTCA	TCGCGACGCA	TTTCCTCAGA	CATAGCAAGG	ATAATGGTGT	CACGGAAGGA	6120
CATTGTTTTT	GTTTCCATTT	TATCTCTTTC	TCCTTAGTCT	GCGTAAATAT	CTTCAAAGGC	6180
TGATTCAAGC	GGTGGGAATG	GGCTTTCCTC	TGCAAATTTA	ACAGAAGCTT	CTACTGCTTC	6240
CTTTACTTGC	GCTTGGATTT	CTTCCAATTC	TTCGGCACTT	GCAATGTTAT	TTTCAATAAG	6300
GTAATTGCGG	AGGTTTTTCGA	TTGGATCTTT	TTGTTTCCAC	AATTCCACTT	CTTCACGCGT	6360
ACGATATTTA	CCAGGGTCAG	ATGATGAGTG	ACCGAGCCAG	CGATAAGTTA	CACTTTCAAT	6420
CAAGACTGGA	CCATTGCCAC	TGCGAACATG	GTCCACAGCT	TTCTGAAATC	CTTCATAGAC	6480
ATCGATGACA	TTGTTACCGT	CTTCGATGAA	CATTCCAGGA	ATTCCATAAG	CGGCGCTACG	6540
TTGATGGATA	TGTTCTATAT	TGGTCATTTT	CTTGATATCC	GCAGAGATAC	CGTAACCGTT	6600
GTTAATGCAA	TAGAAAATGA	CTGGCAGGTT	CCAGATAGAA	GCCATGTTCA	CTGCTTCGTG	6660

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GAAAACACCT	TCATTGGTCG	CACCATCTCC	AAAGAAGCAG	ACAACGATTT	TACCGGTATT	6720
TTGCATTTGC	TGACTGAGGG	CTGCACCGAC	AGCGATCCCC	ATACCACCAC	CTACGATACC	6780
ATTGGCACCA	AGGTTCACAG	CATCAAGGTC	AGCGATATGC	ATAGATCCAC	CTTCCCTTT	6840
ACAGGTTCCA	GTGTATTTAC	CAAGGATTTT	AGCCATCATT	CCGTTGAGGT	CAATCCCTTT	6900
AGCAATAGCT	TGCCCCTGTC	CACGGTGGTT	TGAGGTAATC	AGATCATCTG	GATTGAGAGC	6960
TAACATAGCC	CCCACGTTAG	CTGCCTCTTC	ACCAACAGAA	AAGTGCGTCA	TTCTGGCAC	7020
TTTCCCTTTC	TTTACTAATT	GTGCAATTTT	TAAGTCCATG	CGACGGATTT	CTTCCATCTT	7080
ACGGAACATT	TCTAGCAAAA	GATTTTTATC	TAAAGTTGAC	ATCTTCTTGC	CTTCTAACT	7140
TTCTTCTTAC	CTTACTATTT	TACCGCTTTT	GGCAAATACT	GTCAAAGTTT	TTCTAAAAGA	7200
AATTTACAA	AATAAAAAAG	AAAACCCCGT	GAAAACAAGG	GATTTTCTTG	TCAAGAATAT	7260
TTTTTCACAA	ACTTTTTAGC	ATTTGGATTT	TGCTAAAGAT	TCAAATCTCT	TCATAATCAC	7320
AGTTAAACGC	CAACGGTAGA	GCGCCCCGCT	CACAATCAAA	CTAATAATCA	AGCCGATCCA	7380
GTAAGAATAA	GCTCCAAAAT	CTGTTAGGGA	ATCAAATAGC	GTAnCACAGG	GATTGCTACG	7440
CCCCAATAAC	CAAGCAAACC	AAGGTAAAAA	GGAATAACTG	TATCCTTATA	CCCCCGCAAA	7500
ATTCCCTGAA	GCGGCGCCGC	AAAGGTATCT	GCTAACTGGA	AGAAAAGACT	ATAAGTTAAA	7560
AAACGCACTG	TCAAATCGAT	AAATTTTGGG	TCGTTACCAT	AAAGACTGGC	CACATTTCCC	7620
CTAAAAATGT	AAAGGAAGGT	TAAGGTGAAG	GCCGCAAAAA	TGAGGGCAGT	CCATCTTCCT	7680
AGACCAATAT	AGGTTTTCGC	ATCATCAAAT	CGCTTGGCTC	CCACTTCATA	GGAAACGACA	7740
ATAGCCATAG	CCGATGAGAT	ACTCATAGGA	AAGGCGTACA	TAAGACTTGA	AAAGTTCATA	7800
GCTGACTGGT	GACTAGCTAT	AATCAAGGGC	GAAAACCTTAG	CCATAATCAA	GCCAACCACT	7860
GAAAAGATAG	CCACTTCCGC	GAAGACAGTT	CCCCCAATAG	GCAGACCTAA	ACGAACTCCT	7920
TCCTTAATTT	TATCCATATT	AAGTGGAATT	CGTTTCTCAA	GGTGTAAGGC	TTTGAGCTTC	7980
TCCTGTTTAA	ATAAAACCAG	AACAGAAATC	CCAAGCAAGA	CCCAGTAGGC	CAAGGATGTT	8040
CCTAAACCAG	CACCAGCCCC	TCCCAGTTCT	GGAACACCAA	AGGCACCGTA	AATCAAGAGA	8100
TAGTTAAATC	CGCTATTGAG	AGGGAGTAAC	AAAAGCATGA	GGTACATGGA	CAGTTTGGTC	8160
AAGCCCAGCG	AATCCAGCAA	GGAACGAATG	ACGCTAAAGA	GCAACAAGGG	GATAATCCCG	8220
ATAGATAAAA	ACCAAAGATA	GCGAACCGCT	ACTGCCGCTA	CTGCTGCTTC	TAACCCAATA	8280
TGATTCAAGA	TTATTGGTGC	CAAGAAAAGT	ACCATCCCCA	GCAAGACCAC	AGATAGGCCC	8340
AAGGCCAAAT	AAATAAATTG	GTAAAAATCA	GACGCAACTT	CTTCCTTTTT	GCCTCGACCA	8400



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AGATGGTGAC	CAATGATAGG	CACCAAGGCT	GACACAATCC	CTGTTAGAAA	TGTAAAGAAA	8460
GGATTCCAGA	TACTGGTTGC	CATAGATACA	CCAGCCAAGT	CCATAGTGTT	GTATTGACCT	8520
GTCATTGCAG	TATCAACAAA	AGAGGCAGAA	TAATTGGCAA	ATTGGTAGAT	CAGGATTGGG	8580
AAGAAAATTT	TTAAAAATAA	TACTAACTTC	TCTCGTAAAC	ACTTTGTCTT	ATACATACTT	8640
CTCTTTCTAT	TCTGATTTAT	CTAAACCAAA	GAGTTTCAGA	CCATAGTTTT	TCAAACCTAG	8700
CGGAGGTTTA	TTAGATTTTG	AAGTAGTATG	CCAACACGCA	CATGTACGAC	AATAATAGCT	8760
TCTAACTAAA	CCTCCGTTAT	CATATTGAAC	CGCATGGTCA	GCTTTTTCTT	TAGTTTCATA	8820
TTGAATTTTG	GAACGATTAG	CTGCGGGACA	GTAAATTCCA	CTATTAGATT	TCGCTTGTCT	8880
CTCCCTACGT	TTTCGAAAAT	AATTCATATT	CTAACTCCTA	TCAAGCTTGA	TAGACGATTT	8940
GTCCCTTACA	GATGGTATAT	TTAACCTGCC	CTTTTAAGGT	TTCAACCGATG	AATGGTGAAT	9000
TAGCTGCTTT	GGAAGCAAAA	TGGGAGTCCA	CAAAGCGGTC	AGCCTTGGCA	TCAAAAATAG	9060
TGATATCTGC	TGGACCATTC	TCAGCCAAGT	AACCTGCTTC	AAAGTTGTAA	AGCTTGGCTG	9120
GGTTGTATGT	CATTTTTTCA	AGTAATTCCA	TCAAGCTCAA	CTCACCAGCT	TCTACTAAAT	9180
AGGTCAAGCT	GAGAGACAGG	GATGTTTCTA	AGCCAGTCAT	ACCAGATGGC	GCTTTGGTAA	9240
TATCCTCAAC	ATTTTTTTCA	TCTACATGAT	GAGGCGCGTG	GTCAGTCGCA	ATAACTGTGA	9300
TGACACCTGA	TTTGAGACCT	TCGATAACGG	CACGACGGTC	TGATTCCAAA	CGAAGCGGTG	9360
GATTCATCTT	AGCATTGCTA	CCTTGTTGTA	AAAGAAGTGC	TTCTGTCTTA	GAGAAATGCT	9420
GTGGCGCTAC	TTCTGCTGTG	ACTTCTGCAC	CTAACCCCTG	AGCAAACCTC	ACTACTTTAA	9480
CACTTTCTTC	CTTAGACAAA	TGCTGGATGT	GAACATGGGC	TTTAGTTGCA	TAGGCAATCA	9540
TGACATCACG	CGCCATCATA	GCGTACTCAG	CCACCCCAAGT	AGCACCGCAG	ATATGGAAAT	9600
GTTCTCTAGC	AATATTTTCA	TTAAAGCCAA	GAACACCGTT	CAAACCTGGA	TCTTCCTCAT	9660
GAAGGCTGAT	AAAGGTATTG	AGTTTTTTTG	CTTCCTCCAT	GGCTTCCTTG	ACAATCTTAC	9720
TGCTCTCAAG	CGGAATACCG	TCATCAGAGA	AACCAACCGC	ACCAGCTTCT	AAGAGTGCC	9780
TAAAGTCAGT	CAAGTTTTTA	CCATTAAAGT	TTTTAGTAAT	GGTCGCAACT	GTCTTGACAT	9840
TAATCTTCTC	TTTGGCAGCT	GACTGGAGAA	CTGCTTGCAA	AGTCTCCACG	TCTGAAATGG	9900
TTGGACTGGT	ATTAGCCATC	ATGACGACAG	TAGTAAACC	ACCTGCAGCG	GCTGCTAGGG	9960
CACCAGTATG	AATGTCTTCT	TTATGTGTTT	GACCAGGTTT	ACGGAAATGA	ACATGAATAT	10020
CGACCAAGCC	AGGAGCAACC	ACAAGACCAG	TAGCATCAAT	CGTTTCTGCT	CCTTCTTCCG	10080
TGATCTCAGA	CGCAATTTTG	ATAATTTTCC	CATCTTGAAC	TAAGACATCA	CAAACCTGAT	10140
CCAAACCAGA	CTTGGGATCC	ATTACACGAC	CATTTTTGAT	TAGTAGCATC	TGCTTTCTCC	10200

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TTTATTCATA	GAAATCAACT	TGGGTATCCA	ACAATTTATC	CCCATCATAA	ACAAACTTGG	10260
CTGAAAAGAA	GGGTTTATCC	TCTAAAAGCC	ACTCAACAAA	GGTGTGGTCA	CCTTCCCAAG	10320
TCGGCTTGCT	CAAAACCTCA	TCATAGGGAA	CCCATTCTAG	CGTCCCCTCA	TTGCAGTCAA	10380
TCAAGTCGCC	CTCAAACCTC	GTCACCTTAA	AAACATAGGT	GTACCAGTCT	AAATCTGGTG	10440
TAAATTCAGG	AAAAGTGATG	ACACCTTTTA	GAAGTGGCTT	GGCTTTGAGC	CCTGTTTCTT	10500
CAAGGATTTT	ACGCGCCGCG	CATTCTGGG	GCGTCTCTCC	TCTCTCTAGC	TTACCACCCA	10560
CACCAATCCA	TTTCCCTTCA	TGGACATCAT	TGGGTTTCTT	ATTACGATGG	AGCATGAGCA	10620
GTTCTTTCCC	ATTATCAATG	TAGCAAATCG	TCGCTAACTG	AGGCATATTT	TCTCCTTATC	10680
TAAGCCAATC	GATTGGCTCT	TGTCCTGTCT	CTTTTAAGAA	TGCATTGGCC	TTGGAAAAGG	10740
GCTTGGAACC	CCAAAATCCT	CTATAAACCG	ACAAAGGACT	TGGATGGGCT	GATTCGATAA	10800
TCAAGTGATG	AGGATTGGTA	ACTAATGCCT	TCTTCTTACG	TGCATAAGCT	CCCCAGAGTA	10860
CAAAAACGAC	TGGTCTATCT	AGATGATTGA	CCACCTGAAT	CACAGCATCA	GTAAAAGGCT	10920
CCCAGATTG	ACCAGCATGA	CCATTGGCCT	GTCCAGCAGG	AACAGTCAAA	CAAGCATTAA	10980
GAAGCAAGAC	TCCTTGCTCA	GCCCAAGCTG	TCAAATCATG	AGATTTCTTA	ACTCCGATAT	11040
CATCTGACAA	TTCTTTCAAG	ATATTTTGCA	AGGATGGTGG	AGCTGGGATA	GAGTCAGGTA	11100
CAGAAAAACT	CAAGCCCTGC	GCTTGACCTG	GTCCGTGATA	GGGGTCTTGC	CCTAGAATTA	11160
CCACCTTAAC	TTCTTCAAGC	AGTGTTGTCA	AGAGAGCCTG	AAAAACCTTT	TCCTTGGGTG	11220
GATAAATAAT	CCCCTGAGAA	TAGACCTGCT	CCATAAACTG	ATTGATTTTC	CCGAAATAAC	11280
CCTCAGGTAA	TTGCGCCTTA	ATCAAAGCAT	GCCAAGACGA	GTGTTCCATA	GCCGACTCGG	11340

(2) INFORMATION FOR SEQ ID NO: 148:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12127 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 148:

AAAAAATAGA	CTTGTTAGAC	TATAAATGTA	GTAAGCCTAC	ACAAGAAAAA	TACATAGAGA	60
TAAAGGTGAT	TATTATGAAA	TTCAAAAAAA	TGCTTACTCT	TGCAGCCATT	GGCTTATCAG	120
GATTTGGGCT	TGTTGCCTGT	GGCAATCAGT	CAGCTGCTTC	CAAACAGTCA	GCTTCAGGAA	180
CGATTGAGGT	GATTTACGA	GAAAATGGCT	CTGGGACACG	GGGTGCCTTC	ACAGAAATCA	240

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CAGGGATTCT	CAAAAAAGAC	GGTGATAAAA	AAATTGACAA	CACTGCCAAA	ACAGCTGTGA	300
TTCAAAATAG	TACAGAAGGT	GTTCTCTCAG	CAGTTCAAGG	GAATGCTAAT	GCTATCGGCT	360
ACATCTCCTT	GGGATCTTTA	ACGAAATCTG	TCAAGGCTTT	AGAGATTGAT	GGTGTCAAGG	420
CTAGTCGAGA	CACAGTTTTA	GATGGTGAAT	ACCCTCTTCA	ACGTCCCTTC	AACATTGTTT	480
GGTCTTCTAA	TCTTTCCAAG	CTAGGTCAAG	ATTTTATCAG	CTTTATCCAC	TCCAAACAAG	540
GTCAACAAGT	GGTCACAGAT	AATAAATTTA	TTGAAGCTAA	AACCGAAACC	ACGGAATATA	600
CAAGCCAACA	CTTATCAGGC	AAGTTGTCTG	TTGTAGGTTT	CACTTCAGTA	TCTTCTTTAA	660
TGGA AAAATT	AGCAGAAGCT	TATAAAAAAG	AAAATCCAGA	AGTTACGATT	GATATTACCT	720
CTAATGGGTC	TTCAGCAGGT	ATTACCGCTG	TTAAGGAGAA	AACCGCTGAT	ATTGGTATGG	780
TTTCTAGGGA	ATTAAC TCCT	GAAGAAGGTA	AGAGTCTCAC	CCATGATGCT	ATTGCTTTAG	840
ACGGTATTGC	TGTTGTGGTC	AATAATGACA	ATAAGGCAAG	CCAAGTCAGT	ATGGCTGAAC	900
TTGCAGACGT	TTTTAGTGGC	AAATTAACCA	CCTGGGACAA	GATTAAATAA	AATGTTTGCT	960
CCATAAATCT	CTAAAGAGAT	GCAGACGTTT	CATCGTACAA	TAAGATAAAG	AAGGCAAGTA	1020
GGGAGGTGTC	GTATCTCCCT	TACTTTCTTC	ACTAGAAAGG	ACAAGATGTG	ACAAAACAAG	1080
CCTTCAAAGA	AGCAGTTTTT	AGGGCAATTT	TTTTCATGAG	TGCAACAGTA	GCTGTTGTAG	1140
CTATTTTGCT	AATCTGTTTC	TTTATTTTTA	GTAATGGCTT	ACCTTTCATA	GCTAACTACG	1200
GCTTTGCCCG	TTTTTTATTA	GGCAGTGATT	GGTCGCCAAC	GAACATTCCG	GCAAGCTATG	1260
GTATTTTACC	AATGATCGTT	GGTTCCTTAT	TAATTACCTT	AGGAGCGATT	GTGATTGGGG	1320
TGCCAACAGG	CATCTTGACA	TCGGTGTTTA	TGGTTTATTA	TTGTCCAAAG	CCCGTCTATG	1380
GCTTCTTAAA	ATCAGCTATC	AACTTGATGG	CAGCCATTCC	ATCTATTGTT	TATGGTTTTT	1440
TCGGCCTACA	ATTATTGGTG	CCTTGGATTA	GAAGCTTTTT	AGGAAATGGC	ATGAGTGTCC	1500
TAACCGCTTC	GTTACTATTA	GGAATAATGA	TTTTGCCAAC	CATTATCAGT	TTGTCAGAAT	1560
CTGCTATCCG	AACAGTTCCC	AAAACGTATT	ATTCTGGTAG	CTTGGCTCTA	GGAGCTAGTC	1620
ATGAACGGAG	TATTTT TAGT	GTCATCTTGC	CAGCTGCGAG	ATCTGGTATT	TTATCAGCAG	1680
TTATTTTAGG	AATCGGTCGC	GCAGTAGGTG	AAACCATGGC	AGTTATTTTG	GTGGCAGGCA	1740
ACCAGCCGAT	TATTCCAAGT	GGACTCTTTT	CAGGAACCAG	AACCTTAACA	ACCAATATTG	1800
TTCTGGAAAT	GGCTTACGCA	TCAGGTCAGC	ATAGGGAAGC	CCTTATTGCA	ACCTCAGCAG	1860
TTCTCTTTTT	CCTTATTCTC	TTGATTAATG	CCTACTTTGC	CTACTTGAAA	GGAAAATCAT	1920
CTTATGAGTA	AATACCTGCT	AAAAC TTCTC	GTTTATTGTT	TTTCAGCTTT	AACCTTTGGC	1980
TCTCTCTTTT	TAATCAT TGG	TTTTATCCTC	ATCAAAGGCT	TACCTCATCT	AAGTCTATCC	2040

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CTCTTTTCTT	GGACTTATAC	TTCTGAGAAC	ATTTCCCTTA	TGCCAGCGAT	TATTTCCACC	2100
GTTATTCTGG	TCTTTGGTGC	TCTTCTTTTA	GCCTTGCCCA	TAGGGATTTT	TGCTGGTTTT	2160
TATCTTGTGG	AATATACAAA	AAAAGATTCC	CTTTGTGTTA	AAATCATGCG	ATTGGCCTCA	2220
GATACCTTAT	CTGGGATTCC	TTCCATTGTT	TTTGGTCTGT	TTGGCATGCT	CTTCTTTGTA	2280
GTCTTCTTAG	GTTTTCAATA	CTCTCTGTTA	TCAGGAATCT	TAACCTCAGT	TATCATGGTG	2340
TTGCCAGTCA	TTATTCGCTC	AACAGAAGAA	GCCCTTTTAT	CTGTTAGTGA	TAGCATGCGT	2400
CAAGCAAGTT	ATGGACTTGG	GGCAGGTAAG	TTACGGACTG	T'TTTTAGAAT	TGTTCTACCA	2460
GTTGCCATGC	CAGGTATTTT	AGCTGGAGTG	ATACTAGCTA	TTGGCCGTAT	CGTTGGTGAA	2520
ACAGCTGCCC	TCATGTATAC	ATTAGGTACC	TCTACCAATA	CGCCAAGTAG	TCTCATGTCT	2580
TCAGGCCGTT	CTCTAGCCCT	ACATATGTAT	ATGCTGTCAA	GTGAGGGGCT	ACATGTCAAT	2640
GAAGCCTATG	CTACCGGCGT	GATTTTGATT	ATTACTGTTT	TAATGATAAA	TACTCTATCA	2700
AGCTTATTAT	CTCGAAACT	TGTGAAAGGA	GCTTCCTAGT	ATGGGAACAT	TTTCAGTCAG	2760
ACACCTAGAC	TTATTTTACG	GGGATTTTCA	AGCCTTAAAA	AATATTTTCA	TTCAATTACC	2820
AGAAAGACAG	ATTACTGCCT	TGATAGGCCC	ATCTGGTTGT	GGCAAATCAA	CTTTTCTAAA	2880
AACCCTTAAC	CGGATGAACG	ATTTGGTTCC	TTCTTGCCAT	ATTGAAGGCC	AAGTCCTCTT	2940
AGATGAGCAA	GATATTTATA	GTAGCAAATT	CAACCTTAAT	CAGCTACGTA	AGCGTGTAGG	3000
GATGGTTTTT	CAACAGCCTA	ATCCCTTTGC	CATGTCTATC	TATGATAACG	TGGCTTATGG	3060
CCCAAGGACA	CATGGTATTC	GAGACAAAAA	ACAATTAGAT	GCCTTAGTGG	AGAAATCTTT	3120
AAAAGGGGCA	GCCATTTGGG	AAGAAGTCAA	AGATGATCTT	AAAAAGAGTG	CCATGTCCTT	3180
ATCTGGCGGT	CAGCAGCAAC	GCCTTTGCAT	TGCGCGAGCT	TTAGCAGTAG	AACCTGATAT	3240
TCTGTTAATG	GATGAGCCGA	CTTCAGCCTT	AGACCCTATC	TCCACTTTAA	AAATTGAAGA	3300
CCTCATTCAG	CAACTAAAAA	AGGATTATAC	GATTATCATT	GTTACCCATA	ACATGCAACA	3360
AGCTTCACGT	ATTTTCAGATA	AAACTGCTTT	TTTCTTAACA	GGAGAAATTT	GCGAATTTGG	3420
AGATACCGTT	GACGTGTTTA	CCAATCCAAA	AGATCAGCGC	ACAGAAGACT	ATATTTTCAGG	3480
ACGGTTCGGA	TAAGGAAGGA	AAAACCTATG	AGAAATCAAT	TTGACTTAGA	ATTGCATGAA	3540
TTAGAACAAT	CCTTTTTTAGG	ACTAGGGCAA	CTTGTCCCTT	AAACAGCTTC	AAAAGCCTTA	3600
CTGGCCTTAG	CCTCCAAAGA	CAAGGAGATG	GCAGAGCTAA	TTATCAATAA	GGATCATGCT	3660
ATCAACCAAG	GTCAAAGCGC	TATCGAATTG	ACCTGTGCCC	GTTTGTGTCG	CTTGCAGCAG	3720
CCACAAGTGT	CTGACCTTCG	ATTTGTGATT	AGCATCATGT	CTTCTTGTTT	AGACCTTGAA	3780



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CGTATGGGAG	ACCATATGGC	AGGCATTGCC	AAAGCTGTTT	TGCAACTAAA	AGAAAATCAA	3840
CTAGCCCCTG	ACGAAGAACA	GTTACACCAA	ATGGGTAAAT	TATCCCTCAG	CATGCTAGCC	3900
GATTTATTGG	TTGCCTTTCC	TTTGCACCAA	GCCTCAAAAG	CTATTAGTAT	TGCTCAAAAA	3960
GATGAACAGA	TTGACCAATA	TTATTATGCC	TTATCAAAGG	AAATCATTGG	ACTTATGAAA	4020
GACCAAGAAA	CCTCAATTCC	CAATGGAAC	CAATACCTTT	ATATCATAGG	GCATCTGGAA	4080
CGCTCGCTGA	TTACATTGCT	AACATTTGTG	AACGCCTAGT	CTACCTAGAA	ACAGGAGAAC	4140
TAGTGGATTT	GAATTAATTC	AACTAATCCT	TAAAAGAGAA	GAGTACGATT	AAGTACTCTT	4200
TTTTATGGTT	GTAAAAAAGT	TCATTTGACC	AATTTAAGCA	GTGTAGATAG	TGAGGAGTTG	4260
TTTCAATTCT	ATCGTGAACG	AGGGAATGCT	GAAAACCTTA	TCAAAGAAAG	GAAAGCAGGA	4320
TTCTTTGGGG	ATAAGACAGA	TAGTTCGACC	ATGATTAAGA	ATGAAGTACG	TATGATGATG	4380
GGCTGTCTGG	CTTATAATCT	CTACCTCTTT	TTAAAGCAGC	TAGCTGGTGA	TGAAGTAAAG	4440
TCCTTGACTA	TCAAGCGTTT	TCGACGTCTC	TTCCTTCATA	TTGCCGAAA	ATATGTCTCT	4500
ACTGCTAGAC	GACATATTCT	CAAATTCTCA	AGTCTATACG	CCTATTCAAA	ACAGTTTCAA	4560
GCCTTATTTG	ATACAATCTG	CCAGATAAAT	CTGATACTCC	CTGTTCCATA	TAGAGCTAGA	4620
GGGCAGGGGA	AAACATGCCT	AACAGAATAA	GTCACCTTAT	TTTAAAAATC	GAGCATCAAA	4680
CCAAGGGAGG	AGTCTGCCCT	TTTTTTAGGAA	AAAATCAAGA	CAAATCTCCT	CAATTATGTC	4740
TCGAACATCA	GAAATTAAGC	AAAATCACCA	GAAGGACAGT	ATTTCAACTA	GCTTTTCTGG	4800
TAATTTTTGA	ACTGTGTAGT	TCGTTAGTGC	CAGATATGAA	TAATTTGGGA	TGATAAATCT	4860
TTCTTCCTCA	GGTAGCCTAT	CATAATACTC	TTCAAAAATC	TTATCAAAAA	CACTCTCTTT	4920
CTTTTGGGCG	ATAGTTTCAT	CTTCGTATGT	AGGAGTCCTC	ATCAAGAAAT	ACTTCAATTC	4980
TAGGTATTCC	TTATCCAAC	CTATATAACT	TGGCATCAAC	TTGTAATCTT	CAACCCCAA	5040
ACGTTTCAGCA	ATATATTTTA	ACTTTGTTAG	TATTGGTCTG	GATTCTCCAT	TTTCAATTCT	5100
AATTAATTGA	CGGATACTTA	ATTCAGACTC	ATCACCACAA	AATTCTGAAC	GACTGATTTC	5160
TTTAGCCAAA	CGTAATCTTT	TAATTTTTTTC	GCCAACTCT	CGCAACCTAC	AAGAACTTCC	5220
TGAGTTGTTT	ACCTCTATTA	TAAGCATATA	CTGAATCAAA	CTATCTATCA	GATTTCTTCT	5280
CACTTTAACT	AAAGACTAAG	AGTTTATCCC	TTCGTCTCGG	TTTTTGTGTA	TTTTTCCACC	5340
ATACCCAGT	AATGCAAGTG	CAAAATCCCC	TAGAATATGA	TAGAATAAGA	GAAAGAACTC	5400
TATCAAGGAG	GAAATCATGG	AAAAACAAAC	CGTCGCCGTC	TTGGGGCCTG	GTTCTTGGGG	5460
AACCGCCCTT	TCACAAGTCT	TAAATGACAA	TGGACACGAG	GTACGTATTT	GGGGAAATCT	5520
TCCCGAGCAA	ATCAATGAAA	TTAATACACA	CCATACTAAT	AAGCACTACT	TTAAAGATGT	5580

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CGTTCTAGAC	GAAAAATATCA	TTGCCTACAC	CGACTTAGCA	GAAACATTGA	AAGATGTGGA	5640
TGCGATTTTG	TTTGTTGTCC	CAACAAAAGT	GACACGACTT	GTTGCCCAGC	AAGTTGCACA	5700
AACCTTGGAC	CATAAGGTTA	TCATCATGCA	CGCATCAAAG	GGATTAGAAC	CTGATAGCCA	5760
TAAACGATTA	TCAACCATTTC	TTGAAGAAGA	AATTCCTGAA	CATCTCCGTA	GTGATATCGT	5820
CGTTGTTTCA	GGGCCTAGTC	ATGCAGAAGA	GACCATTGTG	CGTGACCTAA	CTTTAATAAC	5880
TGCTGCTTCT	AAAGATTTAC	AAACAGCTCA	ATACGTTTCAG	AAGCTATTTA	GTAATCACTA	5940
CTTCCGACTT	TATACCAATA	CGGATGTTAT	CGGGGTGAA	ACTGCTGGTG	CTCTTAAAAA	6000
TATTATTGCT	GTCGGTGCTG	GAGCTTTACA	TGGTCTTGGA	TTTGGTGATA	ATGCTAAGGC	6060
AGCCATCATC	GCTCGAGGTT	TAGCAGAAAT	CACCCGCCTA	GGGGTAGCAC	TCGGGGCCAG	6120
TCCATTGACC	TATAGCGGCT	TATCTGGTGT	GGGAGATTTG	ATCGTAACGG	GAAC TTCCAT	6180
CCACTCTCGT	AACTGGAGAG	CTGGAGATGC	TCTCGGACGA	GGAGAATCCC	TAGCTGATAT	6240
AGAAGCTAAT	ATGGGCATGG	TAATCGAAGG	AATTTCAACG	ACTCGAGCAG	CCTATGAACT	6300
AGCCCAAGAA	CTTGGAGTCT	ATATGCCCCAT	TACACAGGCT	ATTTACCAAG	TTATTTATCA	6360
CGGAACCAAT	ATCAAAGATG	CCATTTATGA	CATCATGAAC	AATGAATTTA	AAGCAGAAAA	6420
TGAGTGGTCT	TAACCCCTCTA	TAGAAAGGAT	TTTTATGACA	TCAAAAGTTA	GAAAGGCAGT	6480
CATCCCTGCT	GCTGGACTAG	GAAC TC GATT	TTTACCAGCA	ACCAAGGCC	TTGCCAAAGA	6540
AATGTTGCCA	ATCGTAGACA	AACCAACTAT	CCAGTTTATC	GTGGAAGAAG	CTCTCAAATC	6600
AGGTATTGAA	GATATTCTAG	TTGTCACTGG	TAAATCAAAA	CGTTCTATTG	AGGACCACTT	6660
TGATTCAAAC	TTCGAATTGG	AATATAACCT	CAAAGAAAAA	GGGAAAACAG	ATCTTTTGAA	6720
GCTAGTTGAT	AAAACAAC TG	ACATGCGTCT	GCATTTTATC	CGCCAAACTC	ATCCACGCGG	6780
TCTCGGAGAT	GCTGTTTTGC	AAGCCAAGGC	TTTCGTCGGA	AATGAACCTT	TTGTCGTTAT	6840
GCTTGGTGAT	GACTTGATGG	ATATCACAGA	CGAAAAGGCT	GTTCCACTTA	CCAAACAAC T	6900
CATGGATGAC	TACGAGCGTA	CCCACGCGTC	TACTATCGCT	GTCATGCCAG	TCCCTCATGA	6960
CGAAGTATCT	GCTTACGGGG	TTATTGCTCC	GCAAGGCGAA	GGAAAAGATG	GTCTTTACAG	7020
TGTTGAAACC	TTTGTTGAAA	AACCAGCTCC	AGAGGACGCT	CCTAGCGACC	TTGCTATTAT	7080
CGGACGCTAC	CTCCTCACGC	CTGAAATTTT	TGAGATTCTC	GAAAAGCAAG	CTCCAGGTGC	7140
AGGAAATGAA	ATTCAGCTGA	CAGATGCAAT	CGACACCCTC	AATAAAACAC	AACGTGTATT	7200
TGCTCGTGAG	TTCAAAGGGG	CTCGTTACGA	TGTCGGAGAC	AAGTTTGGCT	TCATGAAAAC	7260
ATCCATCGAC	TACGCCCTCA	AACACCCACA	AGTCAAAGAT	GATTTGAAGA	ATTACCTCAT	7320

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CCAACTTGGA	AAAGAATTGA	CTGAGAAGGA	ATAACAAAAT	CATTTATATA	AAGATTAGCC	7380
ACACATAAAT	TAAGTAAATT	CTCTACTTGA	ATCTACCTAT	TTAATAAAAA	CTAATGAAAA	7440
CGCTATACTT	GTATTTGTTT	TTTCATTAAA	ATAAGAGTAG	AATAAATTAG	TATAGTAAAA	7500
CAAAAAAGCA	CCGAATCGGT	GCGCACTTTT	TCAAGTTGTG	TACGGACAAA	GCCTTATTTT	7560
AACTTTGCTA	TGTTGTTTCT	AATGGTTCCA	AAATAATAAA	TAATTTTAAA	TTTGACTTAA	7620
CTGTTGGAGT	AGTCATGGTT	AAATTAAATC	AACCGAGCCG	AACATAAGTT	GTTTAATTTT	7680
GTGGAAGCTA	TTAATAAAAA	TATAATAAGG	GAGAAAGATA	GGTGTAATTT	TAATTTTAAA	7740
GTAATTGCGG	ACACTATCAA	AGAAAAAGAT	TATGGAGAAC	AAATTTGTAG	AATTTATCGA	7800
AAACAATAAA	AAAGTAATCA	TTTCATCAGT	TGCAGTTGGT	GTTGTATTGG	TATTAGGTTT	7860
TGGATGGTAT	TCATATAACC	AACAACAAGC	AGAACAACAA	GCAAAAATTG	TACAATTAGA	7920
AAAAGATAGC	AAATCAGACA	AAGAACAAGT	TGATAAACTA	TTTGAATCAT	TTGATGCATC	7980
TTCAGATGAA	TCTATTTCTA	AATTAAAAGA	ACTATCTGAA	ACTTCACTTA	AAACCGATGC	8040
AGGTAAAGAC	TATCTTAATA	ACAAAGTCAA	AGAATCATCT	AAAGCAATTG	TAGATTTTCA	8100
TTTGCAAAAA	GGTTTGGCTT	ATGATGTTAA	AGATTCAGAT	GACAAATTTA	AAGATAAAGC	8160
AACTCTTGAA	ACAAATGTAA	AAGAAATTAC	AAAACAAATT	GATTTTATCA	AAAAAGTTGA	8220
TGAAACTTTT	AAACAAGAGA	ATTTGGAAGA	AACTCTTAAA	TCTCTAAATG	ATCTTGTTGA	8280
TAAATATCAA	AAACAAATCG	AACTTTTGAA	GAAAGAAGAA	GAAAAAGCTG	CTGAAAAAGC	8340
TGCTGAAAAA	GCAAAGGAAT	CTTCTAGTCA	AAGTAATTCT	TCTGGTAGTG	CTTCTAATGA	8400
GTCTTATAAT	GGATCTTCCA	ATTCAAATGT	AGATTATAGT	TCATCTGAAC	AACTAATGG	8460
ATATTCAAAT	AATTATGGCG	GTCAAGATTA	TTCTGGTTCA	GGAGATAGTT	CAACAAATGG	8520
TGGATCATCA	GAACAATATT	CATCTAGCAA	TTCAAACAGC	GGAGCAAATA	ATGTCTACAG	8580
ATATAAAGGC	ACTGGTGCTG	ACGGCTATCA	AAGATACTAC	TACAAAGATC	ATAATAATGG	8640
AGATGTGTAT	GATGACGATG	GAAATTACCT	TGGGAACTTT	GGTGGCGGCA	TTGCAGAACC	8700
TAGTCAACGC	TAATAACTAT	TTTAGAGCTG	TGTTGTTTCG	AATGGTTCCA	AAACACATTA	8760
AAAGCTACTC	ATTTTTTAAG	TAGCTTTTTT	CTTATTCAAG	TTTACATATT	ATACTCAATG	8820
AAAATCAAAT	TCAAACCACG	TCAGCATCGC	CTTACCGTAG	GTATGGTTAC	TGACTTCGTC	8880
AGTTTCATCT	ACAACCTCAA	AACCATGTTT	TGAGCTGACT	TCGTCAGTTC	TATCTACAAC	8940
CTCAAAGCAG	TGCTTTGAGC	AACCTGCGGC	TAGCTTCCTA	GTTTGCTCTT	TGATTTTCAT	9000
TGAGTATTAG	TCGTCACAAT	CCCATTC CCT	TGTAGAAAAG	CAAAATGGCG	AGTCCTACGA	9060
ACAAGACTAC	CGCTCCTAAT	CTCTGGCTGG	TGTTATACAT	CCGTTTTTCT	CCTCTAACTG	9120



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GAAAGATAAC	TGCTAGAAAT	GCGCCACCAA	CTGCACCACC	GATATGGCCT	GCTAGGCTGA	9180
TTCTTGGAAT	CAGAACACTT	CCAATAATGT	TAACCACAAA	AAGTGTGAGA	TAGGATTGCC	9240
CTAGCTGTTG	GATATAAGGA	TTGCGAGTTG	CATAGCGAAG	AACAATAATC	GCGGCAAATA	9300
GCCCATAAAG	AGAGGTAGAG	GCGCCTGCTG	CTAAGGATTT	AGGACTAAAT	ACAAAAACAA	9360
AGAGATTGCC	CATCATTCCT	GATAAAAGAT	AGAGAAAGAA	AAACTGCTTA	GAACCGAAAA	9420
TCTCCTCTAC	CTGCCTTCCA	AGATAATAAA	GTGAAAGCAT	ATTAACAATG	AAATGTTCCC	9480
ACCCAATATG	AACAAAAATG	GCAGACAAGA	GACGCCAAAC	CTGCTCGGGA	AAGAGGCGAA	9540
TAGCTGGCCC	ATACATGGCT	CCAAATCGAA	ATAATGTATC	TGCCCTGTCA	AAGTTTCCGC	9600
CTGCAGTGAC	CAACATTAGT	AAAAATACCA	AGGCCGTCAC	TAAGAGGAAG	AAACTCGTCA	9660
CAGGGTAACG	TCTATCAAAG	ATTTCCCTCA	TCAATTAATA	CCTCCTGAAC	AGGAATATCA	9720
TGGTTTTTCAG	GTATAAAGTC	CTGAATTTGA	CAAGGATATA	TGCTACTCAA	AGTACGACCA	9780
GAAAAATGTT	CCAGATAGCG	GTCATAATAG	CCTCCACCGT	ATCCTATCCG	ATATCCTTTC	9840
GTCGTAAAAG	CCAGACCAGG	AACATGAATC	AAATCAATCT	GAGATGCATC	CACCACTTCC	9900
AAATCTCCCT	GTAGCTCCAG	TAAGGCAAAG	AAAGTTTTTA	CCAAGTGTG	CGGATCATAG	9960
ACCACAAAGT	CCATGCGCCC	CTTGGGATAA	GTTTTGGGTA	TTAAAACCTT	CTTGCCGTCC	10020
TTCAGCGCCT	GCTCAATCAG	TTCCTGCGTT	TGAAACTCAT	GAGAAAAAGA	GAGGTAGGTT	10080
GCGATGACCT	TGGCTTCTTG	ATAAAAGGGG	TGTTGTAAAA	GCCGCTCGGT	TAAAGCTTGG	10140
TCTATAGCCT	GTTTTTGCTC	TTGAGATATA	GCCTTCATTT	CATGCAAGAC	TTGCTTGCCT	10200
AATTCCGATT	TCATAGACAA	GCCCTCTATT	CTGCTGCCTT	CTTTTTCAGG	AAACTAGACA	10260
CCGCAGCCAC	CCCAATAGCT	AAGACTTCTT	CCTTAGGACT	CATTTGAGGG	TGATGAAGAG	10320
CGTAGGGACT	ATCGATACCT	AGCCAAAACA	TCACGCCATC	AACCTTTGAA	AGGAGATAAC	10380
CAAAGTCCTC	GCCTGTCATA	GCAGGTTCTG	TATCAATCAA	CTCGATTCCG	TCTTTTTTCGT	10440
CAAAGAAGTC	CATCAGTTCA	CGCGCCAAGG	CTGGATTGTT	CTCAACAGGT	AGGTATCCAC	10500
CTTGTTTGAG	TTCCACTTCG	ACTTCCATAT	CAAAGGCAGC	TGCAACCCCT	TCTGCAACTG	10560
TTTTTACCCT	CTTTTGCACC	AAGAGACTCA	TGTCCTGTGT	CAAGGCACGA	ATAGTTCCAT	10620
GTAAAAAAGC	TGTGTCTGTG	ATGACATTGT	TGGTGGTTCC	AGCTTGAAAA	ACGCCGAAGG	10680
TCACCACTGC	TCCCTCGATT	GGGTTGACAT	TGCGGCTAAC	AACTGACTGC	ACTTGGGTCA	10740
CAAAGTAACT	AGCCGCCACC	AAGGCGTCAT	TGGCTTCATG	AGGAAAAGCT	GCGTGGCCAC	10800
CTTTGCCTTT	GAAACGGATC	TTCACCTCGC	AAGTTCCTGC	AAAGAGTGTA	TGAGTATTAG	10860



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TCGCAATCTG	GCCGACTTTC	AAATCTGGAC	GAACATGGAG	ACCATAGAAT	TGATCTGGCA	10920
ACCAATCTCC	AAAAGCACCG	TCCTCATACA	TGAGCATACC	ACCAGCTTCA	TTTTCTTCAG	10980
CAGGCTGAAA	TAGAAAGAGC	AGATTATTCT	TGGGTTGCTC	CTCAAGGGCG	CGCTCAAGAC	11040
AGCCTAAGGC	AATGGTCATA	TGAAAATCAT	GGACACAGGC	ATGCATGCGA	CCTTGGTGTT	11100
GAGAAGCAAA	AGGTAGACCT	GTTTGTTTGA	CGATAGGCAG	GCCATCAATA	TCTGTCCGCC	11160
AACCAATGGT	TCGCTCCGGC	TGACTTCCCT	GCAGGTAGAC	CAAAATCCCT	GTCCGCCAAG	11220
TACGAATTTG	AACAAAATCC	TTGCCCCGTAG	TCAATTTCTC	AATCACATCC	AGCAAATAAG	11280
CCTGAGTCTT	GAACCTCTCC	AAGCCAATCT	CTGGAATCTG	GTGTAAATCT	CGTCTAGTCT	11340
GAATCAAATC	TAACATCTAT	CTGTCCTCCG	ATATAGCAGA	AAGAGGCTGG	AAAAAGGGTT	11400
CCGCCTCTTT	TTTACTTTTA	CAATTACAAG	GTACGAAGCG	CATCCTCTAG	CGCTGTTTTT	11460
TGTTGAGTTT	GGGCATCAAT	TTCTTTGATA	ATACGAGCTG	GAACACCTGC	TACTACCACG	11520
TTTTCTGGGA	CATCTTGGGT	AACAATAGCT	CCTGCTGCGA	CAACTGAACC	ACTACCGATT	11580
TGGACTCCTT	CGATAACCAC	TGCATTAGCA	CCGATAAGAA	CATTGTCTCC	GACACGGACT	11640
GGTTCAGCAC	TAGCTGGCTC	AATCACACCT	GCCAAAACCTG	CACCTGCACC	AACGTGGCTA	11700
TTTTTTTCCAA	CGATGGCACG	GCCACCAAGG	ATGGCACCCA	TGTCAATCAT	GGTTCAGCA	11760
CCGATTTTCAG	CACCGATATT	GATAACAGAT	CCCATCATGA	TAACAGCATT	GTCACCAATT	11820
TCCACCTGGT	CACGGATAAT	CGCACCTGGC	TCGATACGAG	CGTTGATAGC	ACGCTTATCT	11880
AGCAAAGGAA	CTGCAGAATT	ACGAGCATCT	TGCTCGACAA	CATAATCTTG	ATTTTCTACC	11940
AAACCTTCAA	GAAGCGGAGC	CACATCCTTC	CAGTCTCCGA	ATAGGACATT	TCCTAGTTTG	12000
ACAACAGAGC	TAGGCACAGC	AGTTGCGAGT	TGCCCCTCAA	AGGTTACTTT	GACACTGGTT	12060
TTCTTTTCAG	CATTGGCGAT	AAATTGGATA	ATTTCTTGAG	CGTTCATTTT	TGTAGCAGTC	12120
ATAGGTG						12127

(2) INFORMATION FOR SEQ ID NO: 149:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 12566 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 149:

CCATCCTTCT	GTTGATGTGA	CAGGAATGAT	GATAAATCAA	CCAGTAGCTA	GTCGCGAAGA	60
GGTGACAGAG	GCTTTGAGTC	ACTTGGCGGT	AGAGCACAAT	AGTCTCATTG	CTCGTCGAAT	120